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CORRELATION OF GRAVIMETRIC AND SATELLITE GEODETIC DATA

Interim Progress Report Part II

Covering Period

September 11, 1967 – February 29, 1968

Prepared by

Gerald Ouellette
Pasquale Sconzo

Under

Contract NAS 12-598

for

National Aeronautics and Space Administration
Electronics Research Center
Cambridge, Massachusetts

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Correlation of Gravimetric and Satellite Geodetic Data

Prepared by

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International Business Machines Corporation
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Cambridge, Massachusetts

Contract Number NAS 12 - 598

Interim Scientific Report
Part II
Appendix B

Covering Period September 11, 1967 - February 29, 1968

Prepared for

Space Systems Group
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- APPENDIX B -

Graphical Results

This appendix contains the graphical results obtained from the computer. Each graph depicts the positional errors resulting from the inclusion of a given value for one harmonic coefficient. In Section 1, the values used are those published by Rapp as best estimates for the harmonics. In Section 2, the values used are the standard errors associated with each harmonic as published by Rapp. This was achieved by the use of the F factor as described in Section 3.1. It will be noticed that a slight variation in this technique is required in the graphs for zonal harmonics through $C_{4,0}$. This is simply due to the fact that these harmonics were included in the nominal trajectory.

Section 3 contains some preliminary results parameterized with period (semi-major axis).

The secular trend exhibited by many of the graphs is one which can be accounted for (see Section 2.1). Consequently, the prediction error in these graphs is considered to be given by the amplitude of the oscillation about the secular trend.

SECTION I

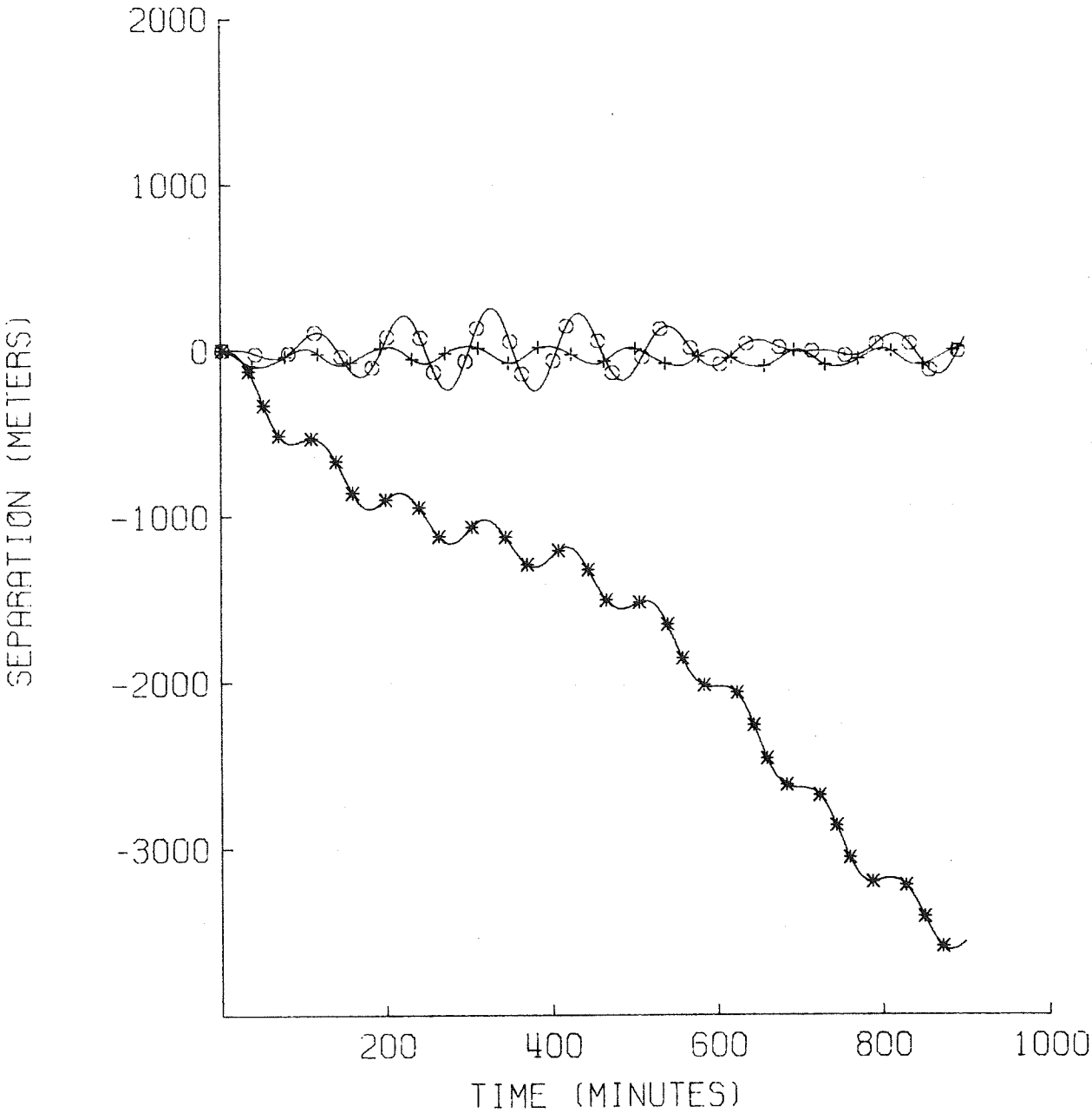
GRAPHICAL OUTPUT FOR HARMONIC VALUES

EQUAL TO PUBLISHED VALUES

M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(2 ,2) = 2.3241
FACTOR USED IS 1.000000

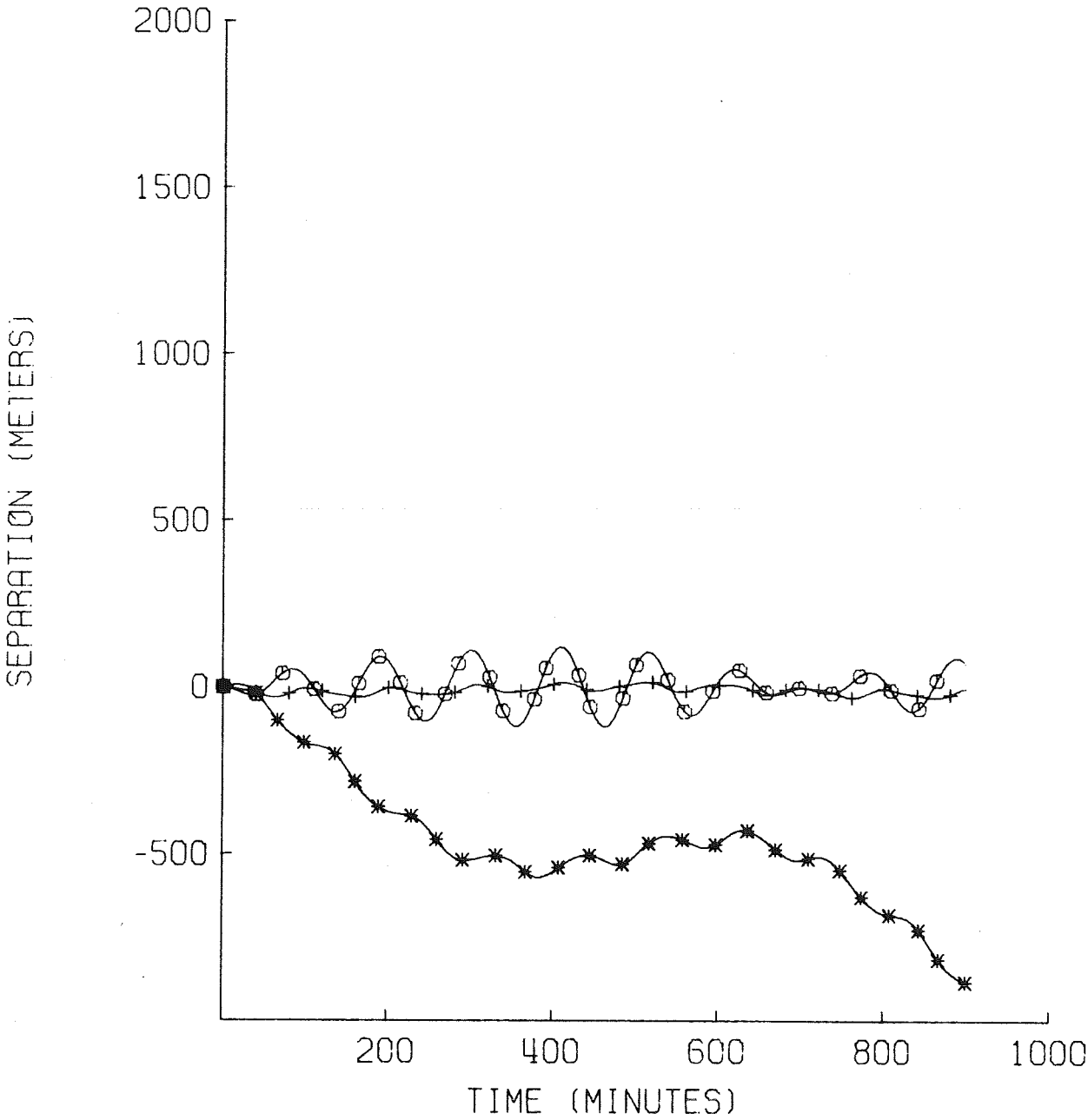
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊘) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(2 ,2) = -1.3106
FACTØR USED IS 1.000000

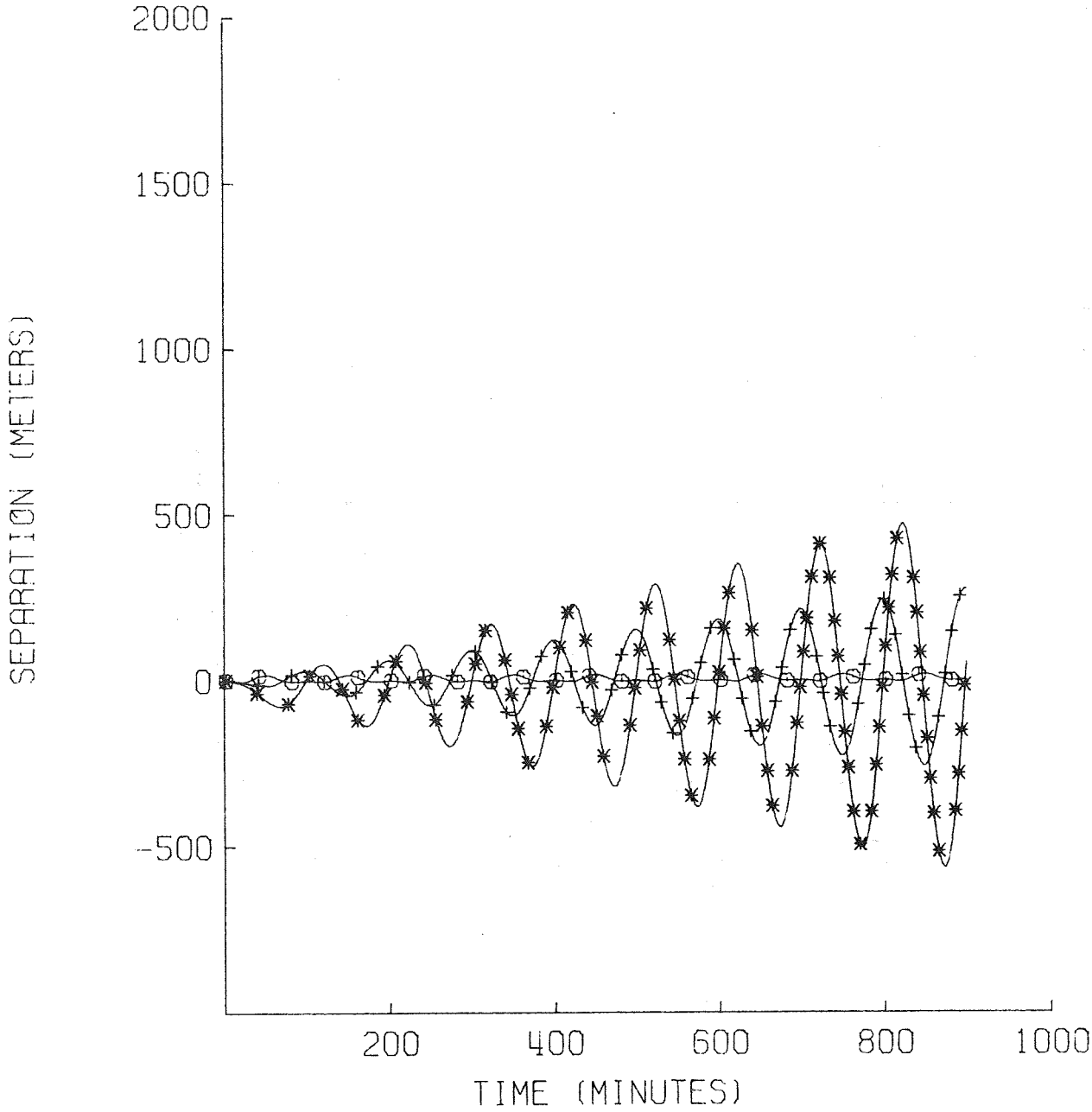
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊘) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(3 ,0) = .9025
FACTØR USED IS 2.000000

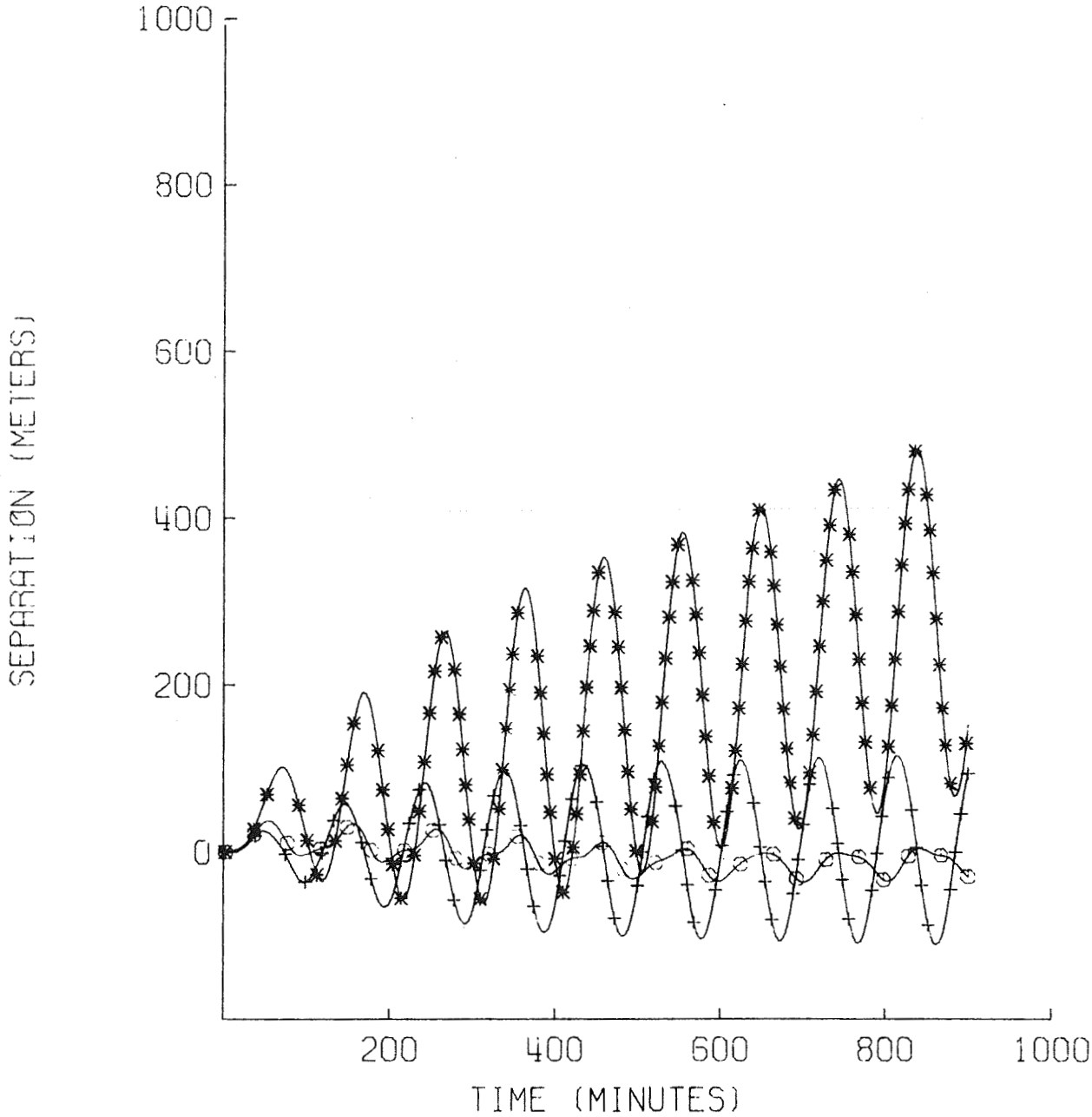
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(3 ,1) = 1.7842
FACTØR USED IS 1.000000

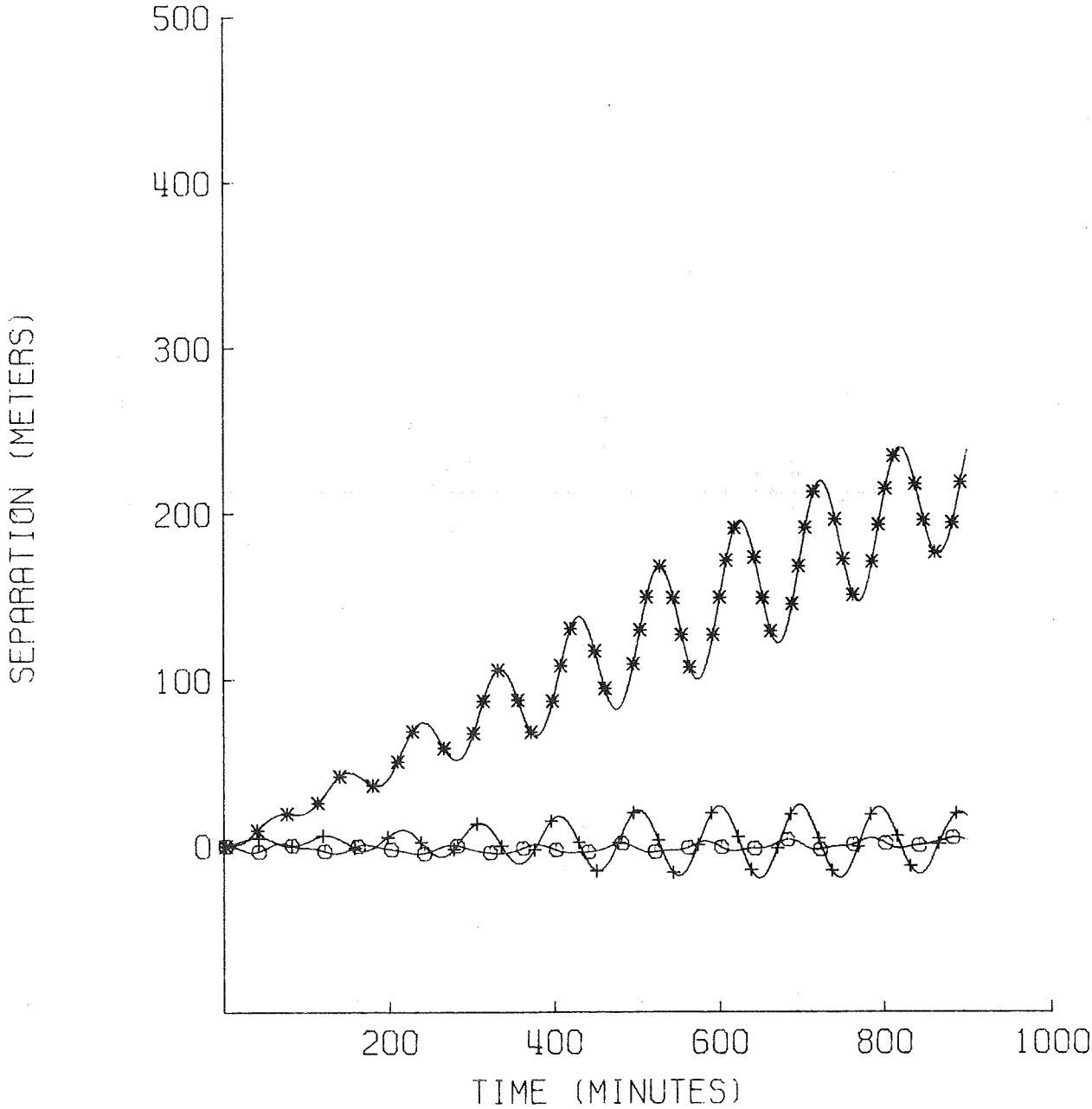
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⦶) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(3 ,1) = .2601
FACTØR USED IS 1.000000

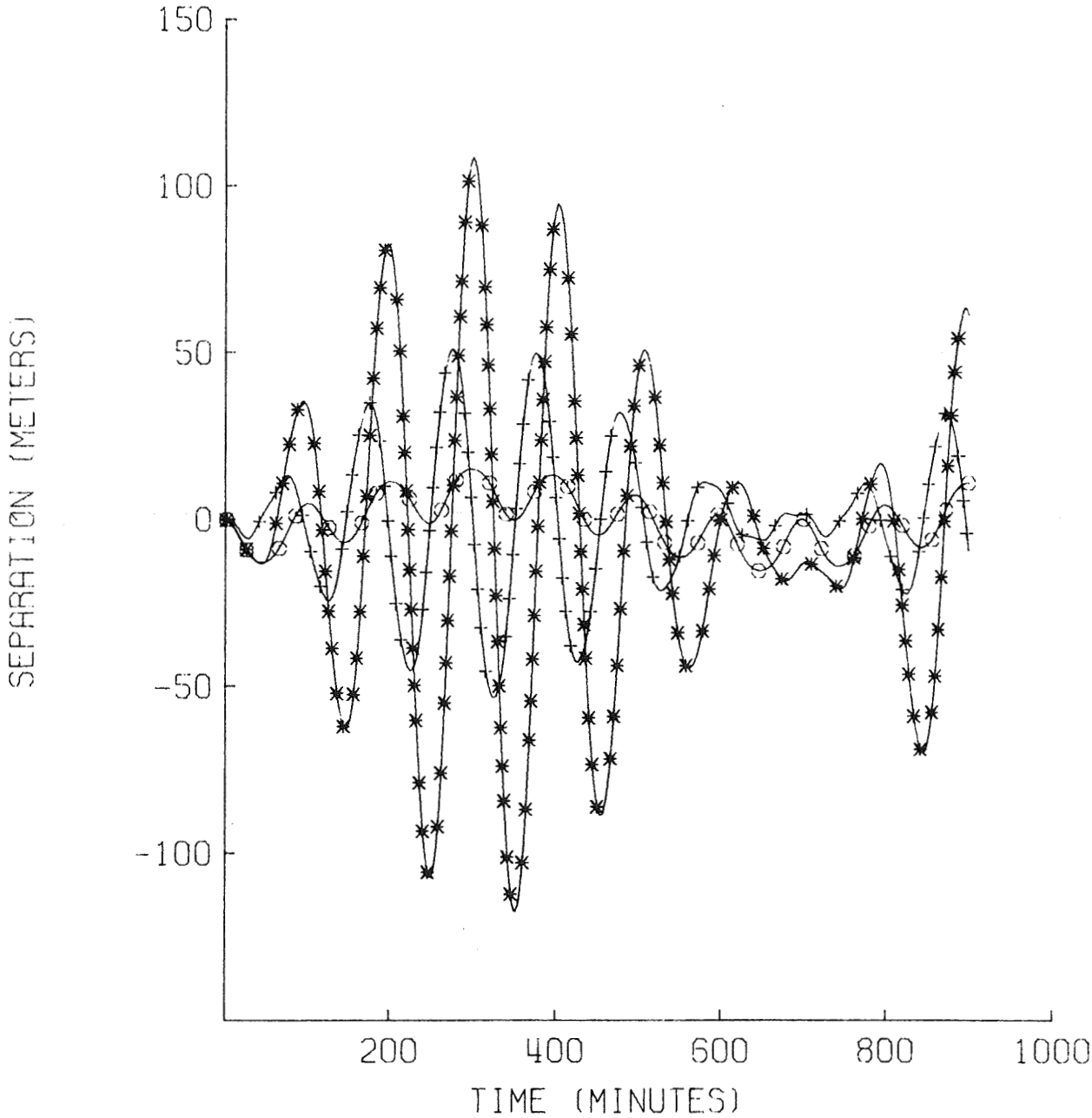
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊕) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(3 ,2) = .7224
FACTØR USED IS 1.000000

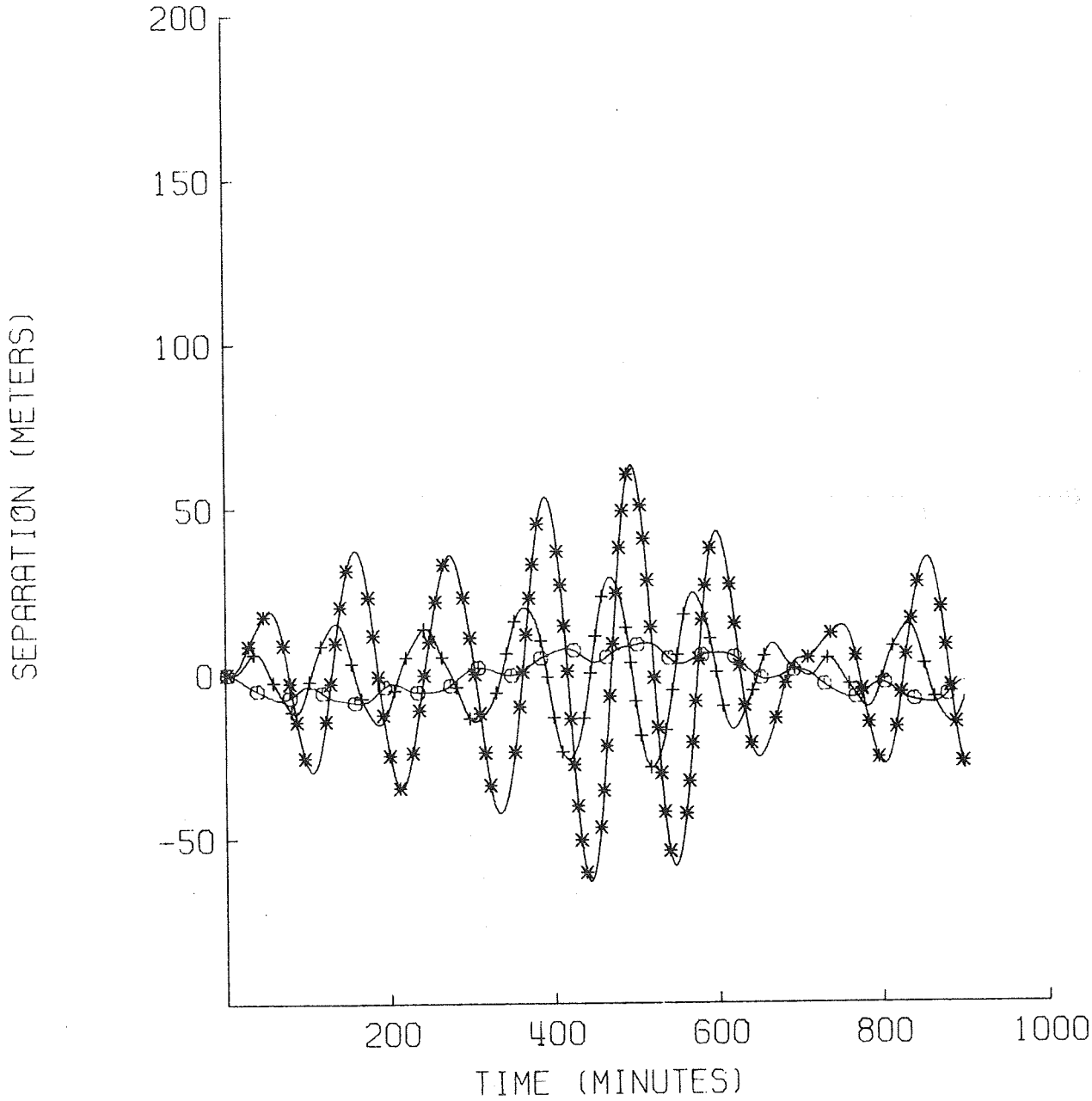
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(3 ,2) = -.5755
FACTØR USED IS 1.000000

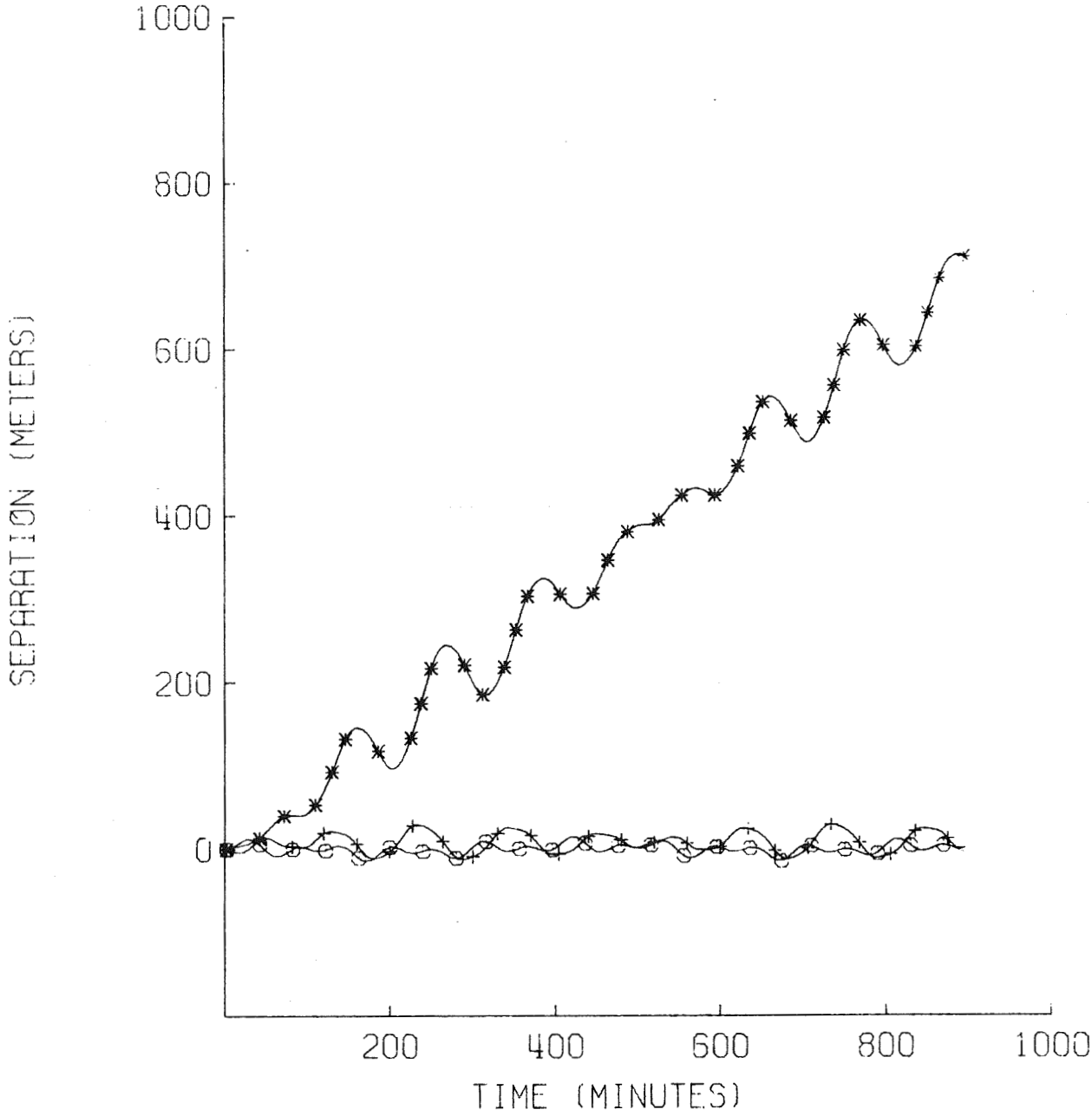
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(3 ,3) = .7240
FACTØR USED IS 1.000000

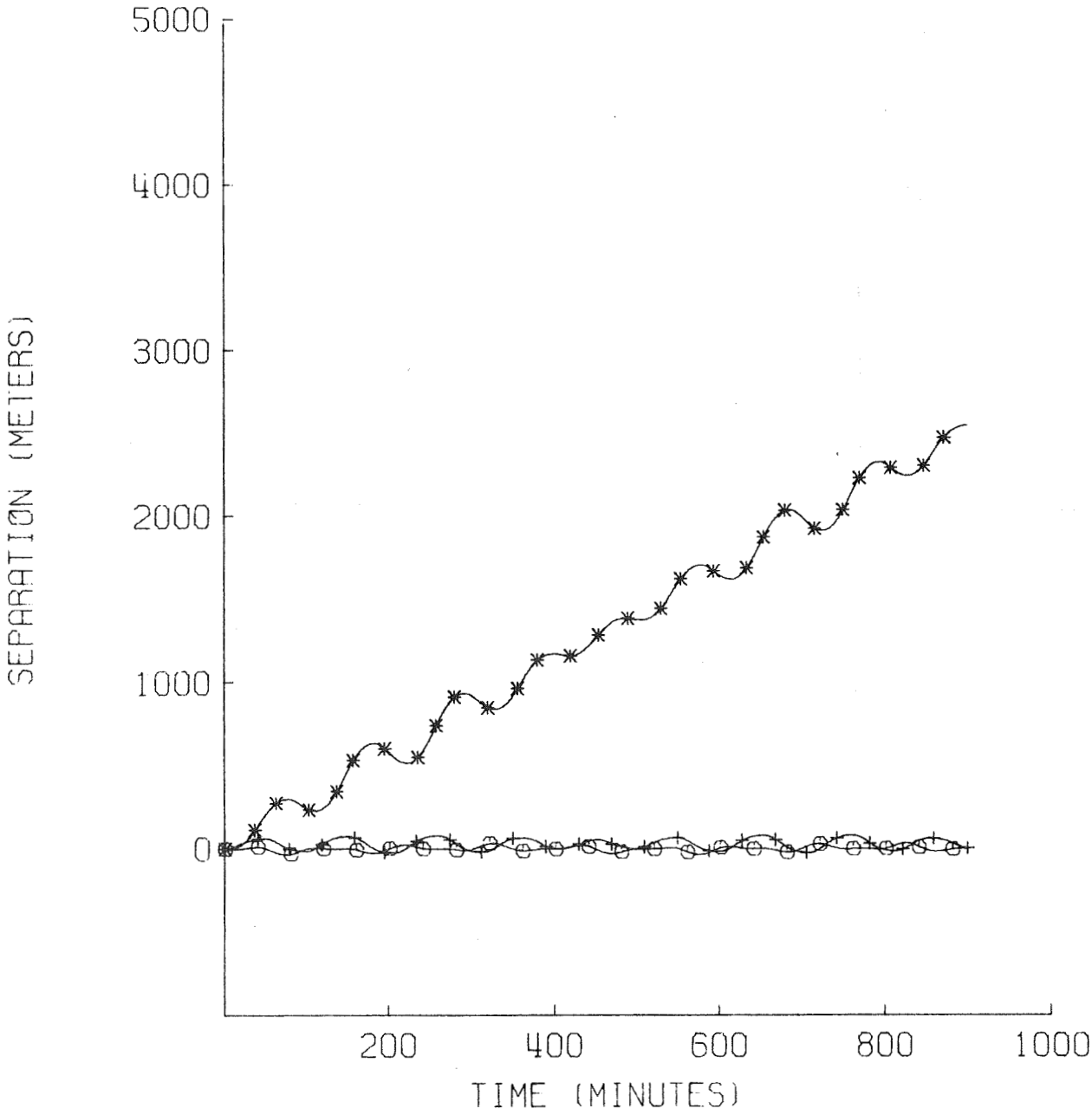
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊕) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(3 ,3) = 1.3860
FACTOR USED IS 1.000000

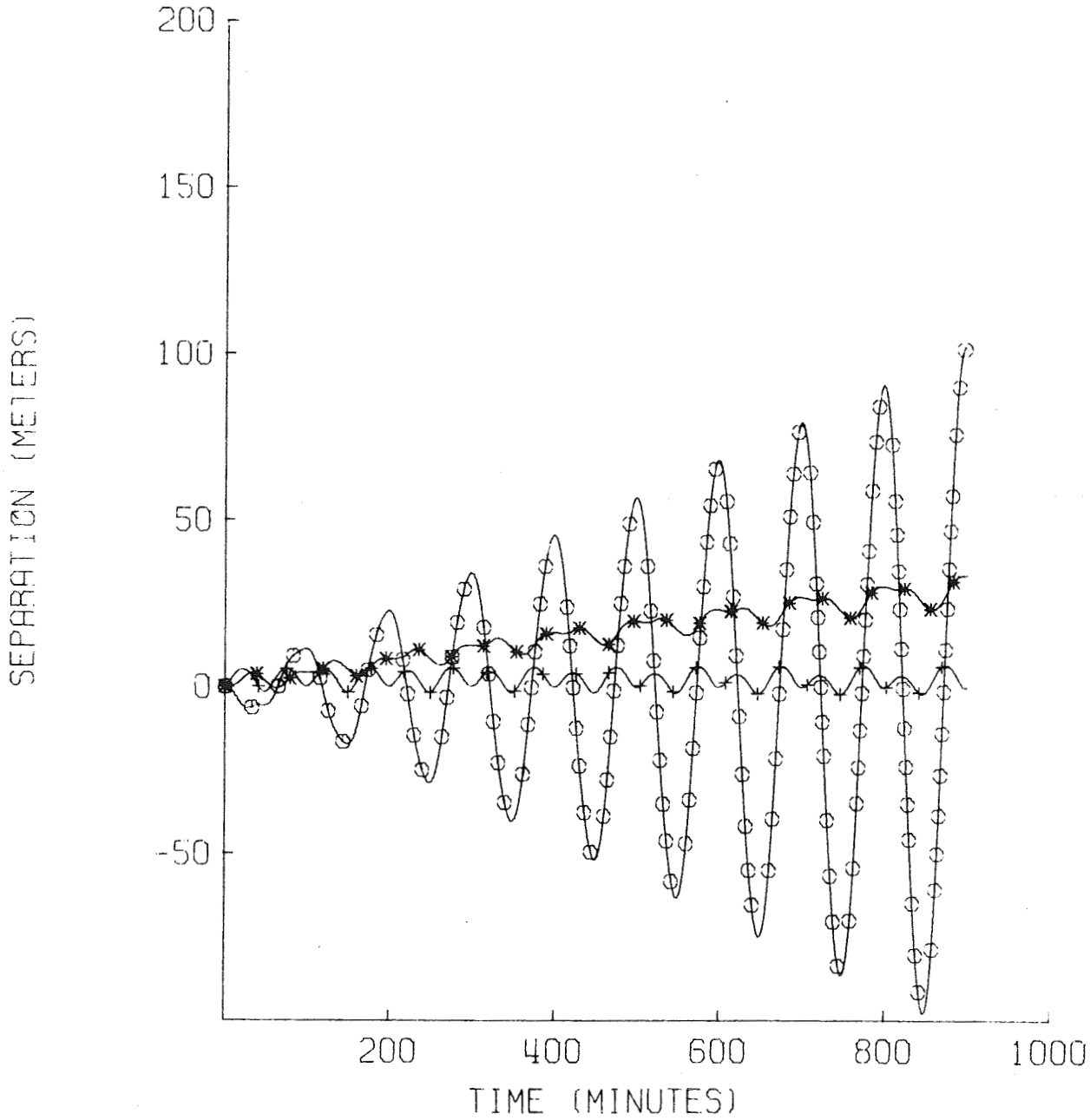
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊖) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(4 ,0) = .5608
FACTØR USED IS 2.000000

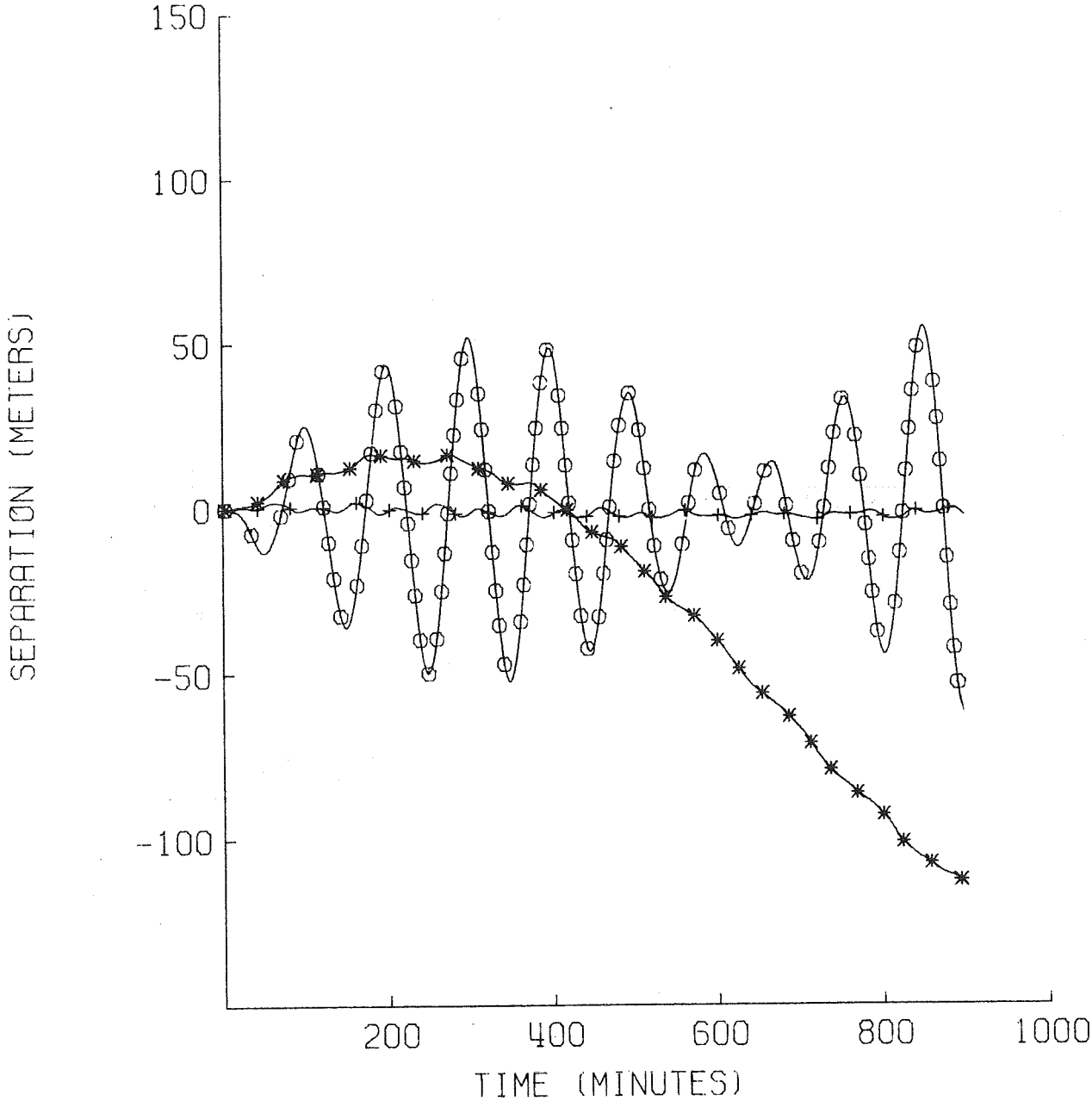
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(4 ,1) = -.5289
FACTØR USED IS 1.000000

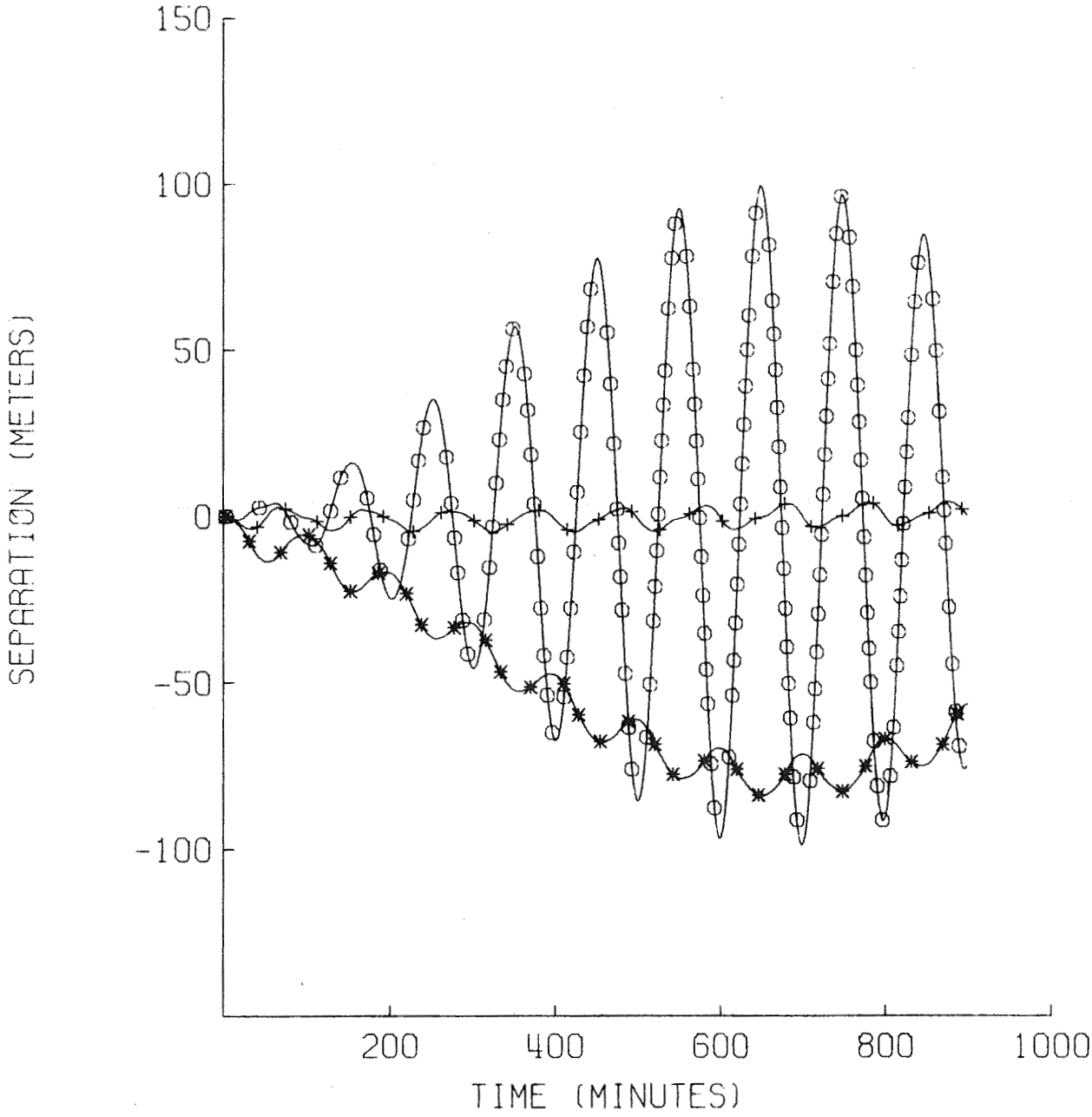
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(4 ,1) = -.4290
FACTØR USED IS 1.000000

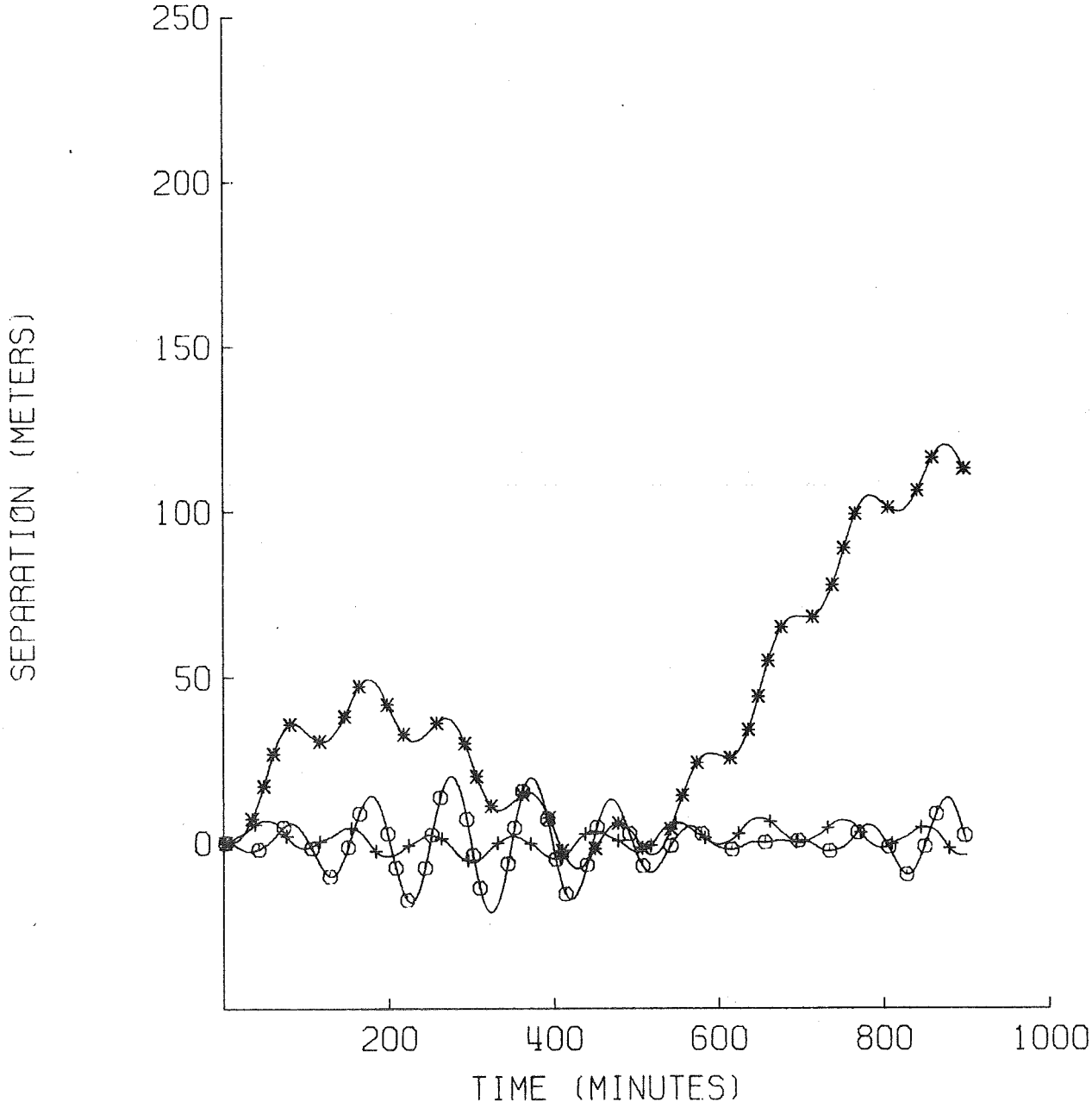
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(4 ,2) = .1966
FACTØR USED IS 1.000000

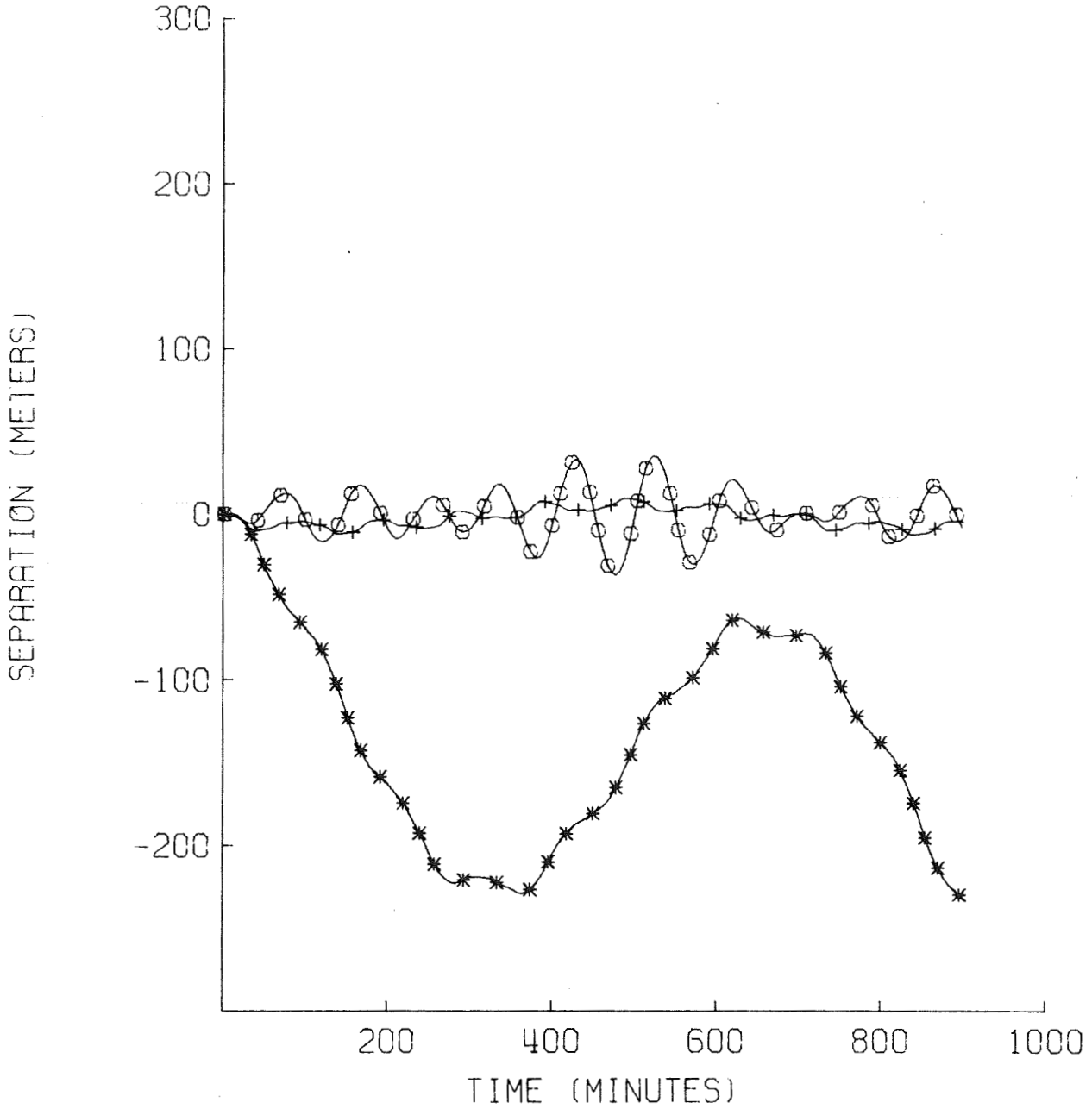
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(4 ,2) = .5120
FACTØR USED IS 1.000000

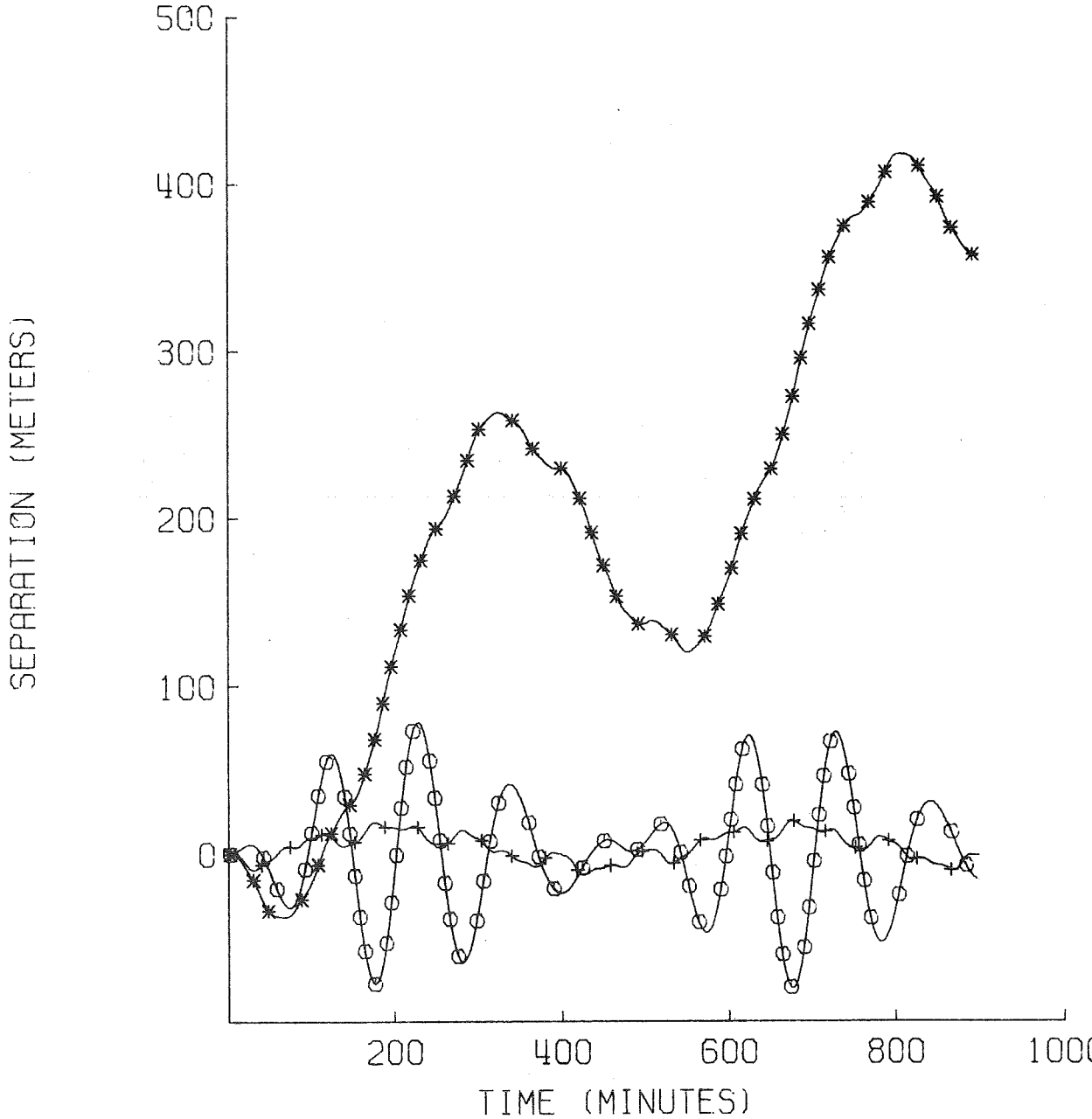
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊘) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(4 ,3) = .8804
FACTØR USED IS 1.000000

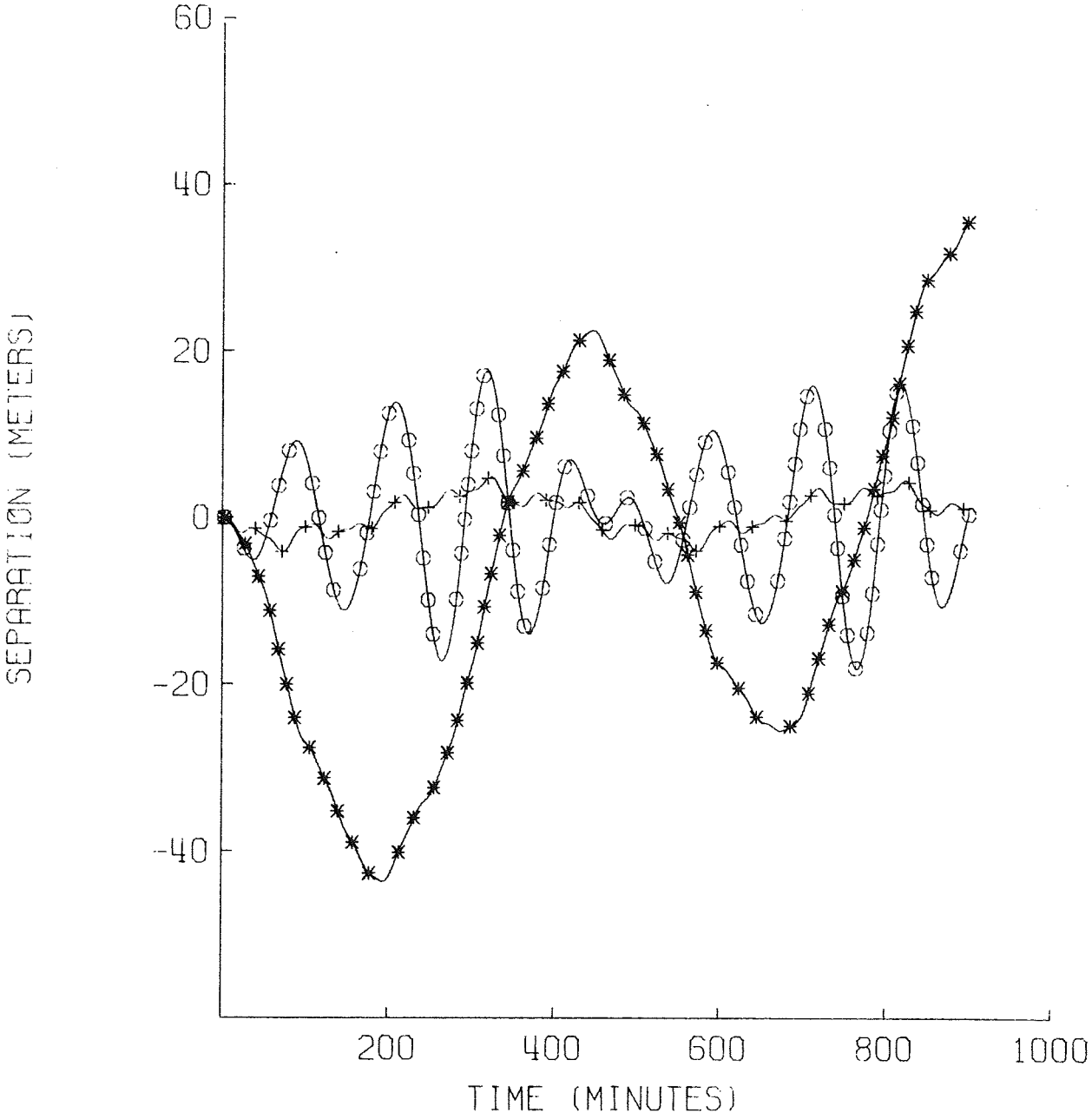
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(4 ,3) = -.2317
FACTØR USED IS 1.000000

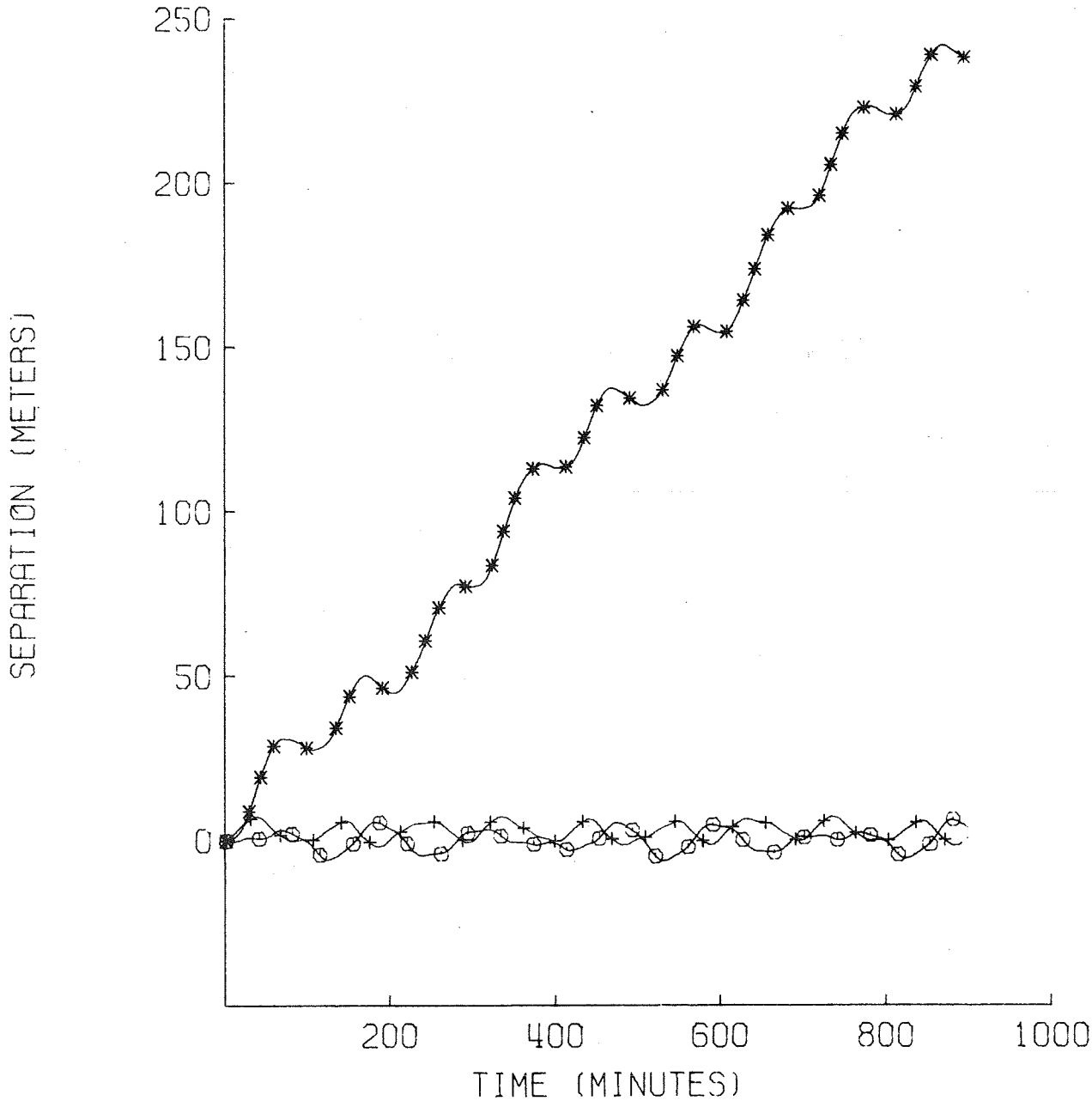
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(4 ,4) = .1861
FACTØR USED IS 1.000000

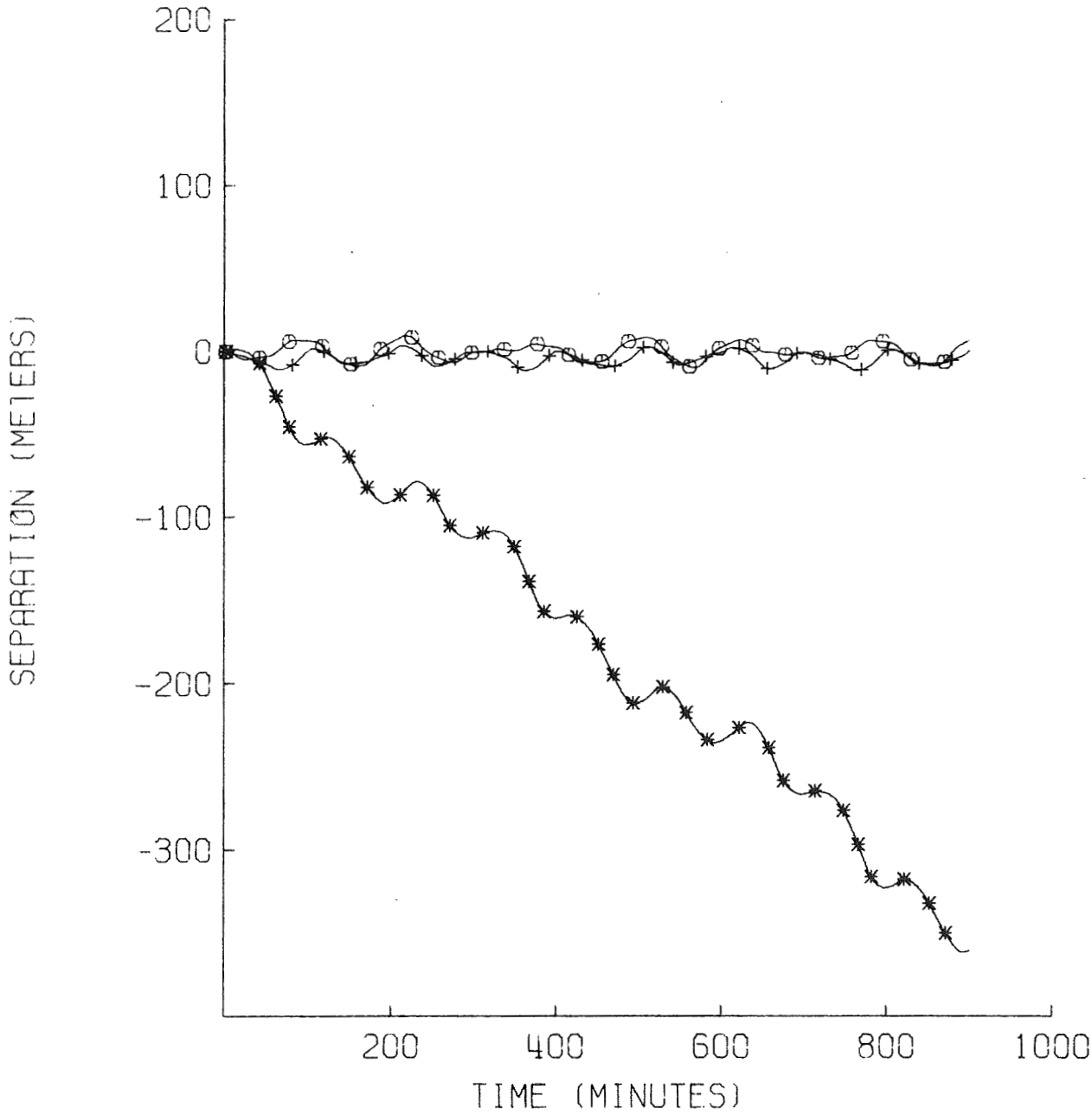
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(4 ,4) = .3065
FACTOR USED IS 1.000000

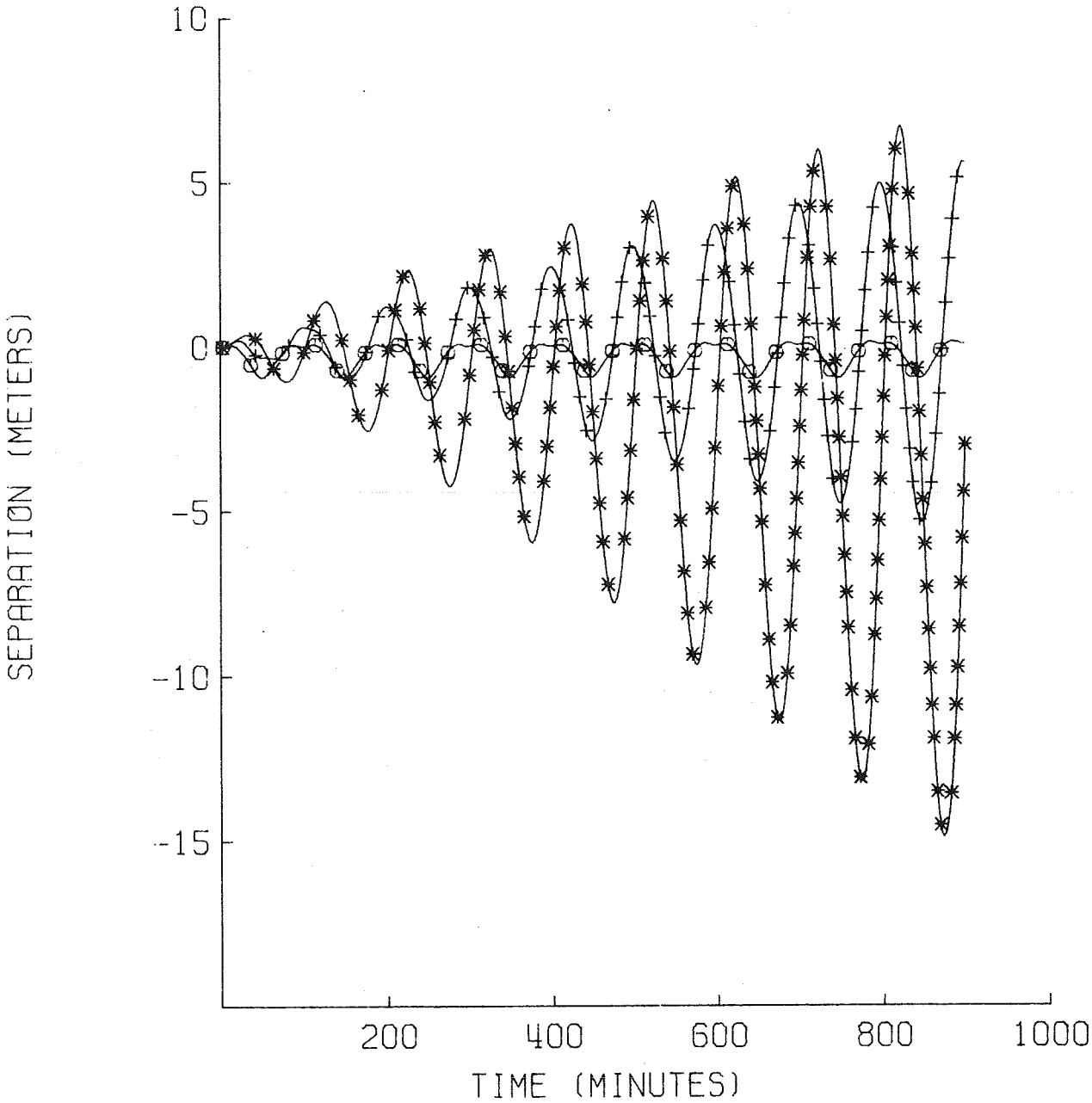
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊕) BI-NORMAL CROSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(5 ,0) = .0296
FACTOR USED IS 1.000000

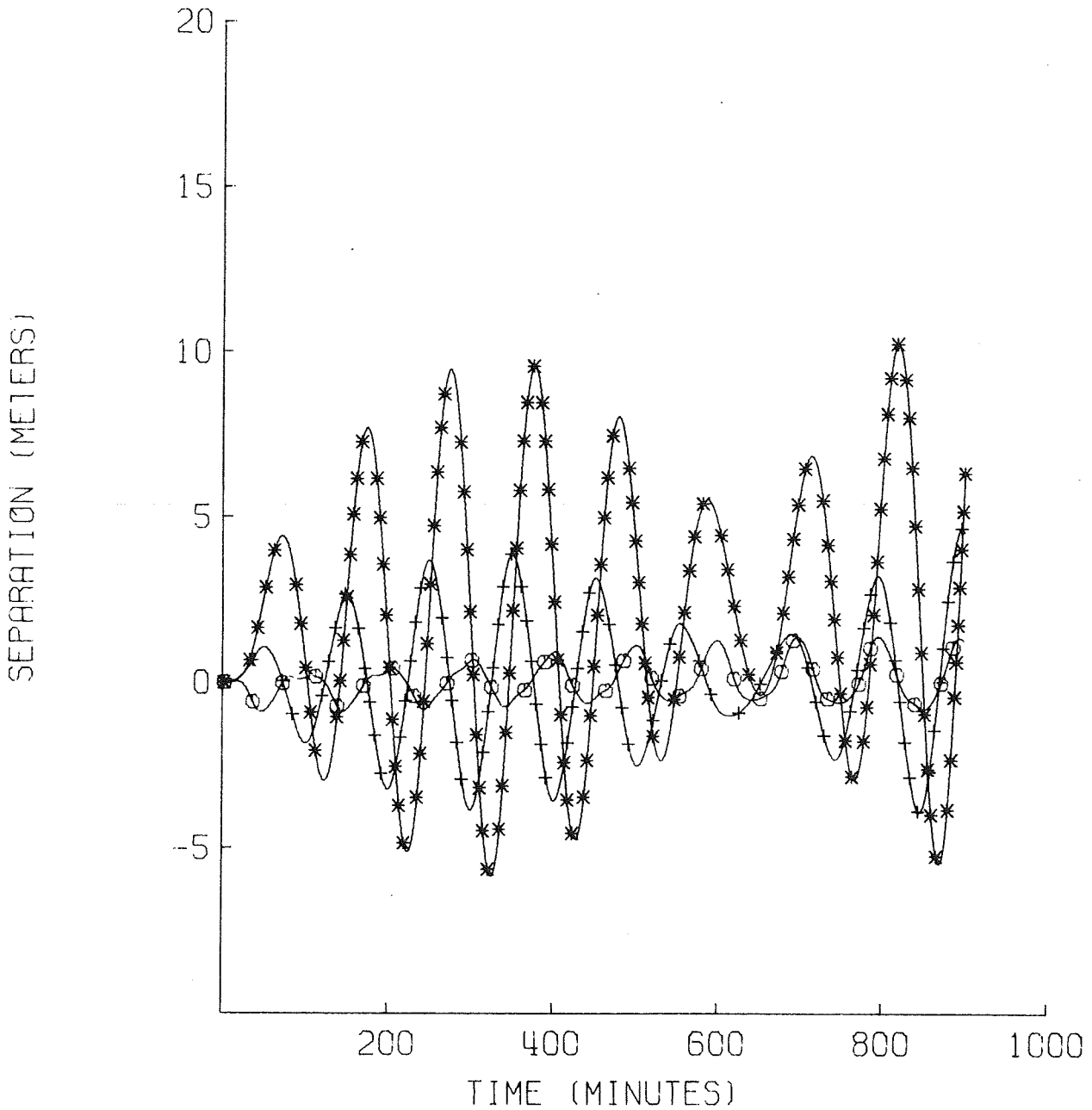
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊙) BI-NORMAL CROSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(5 ,1) = -.0670
FACTOR USED IS 1.000000

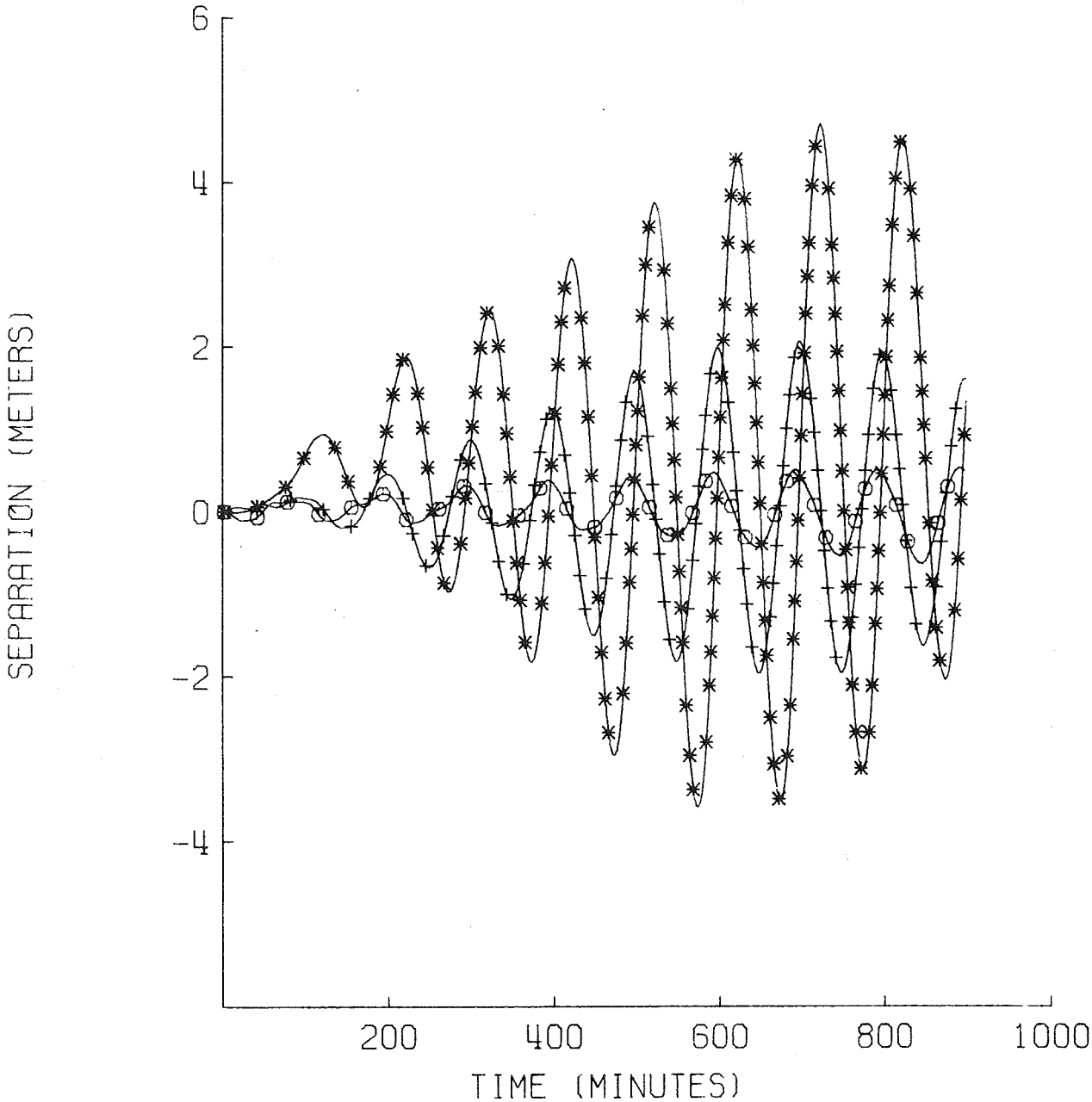
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(5 ,1) = -.0161
FACTØR USED IS 1.000000

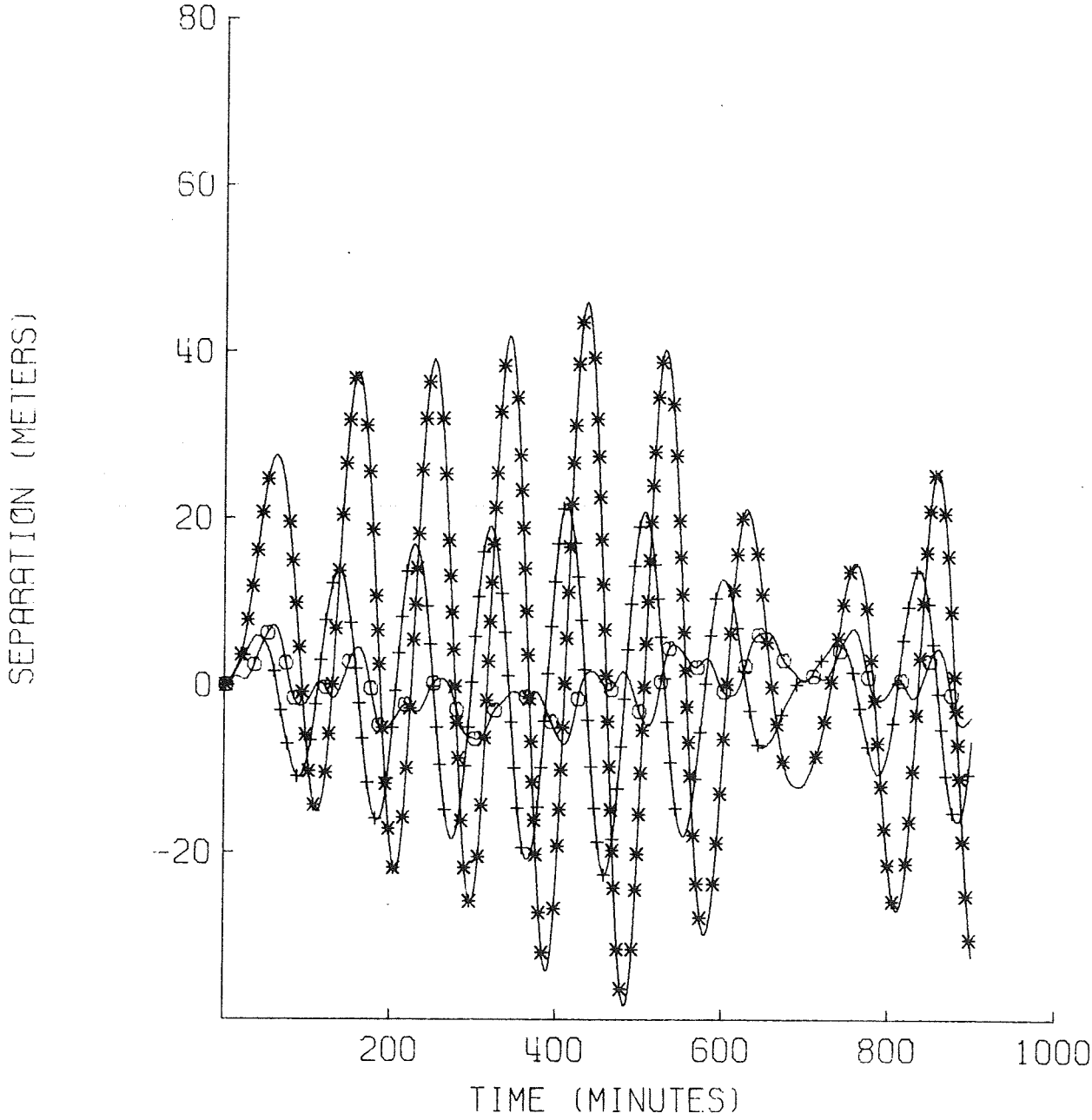
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(5 ,2) = .3934
FACTØR USED IS 1.000000

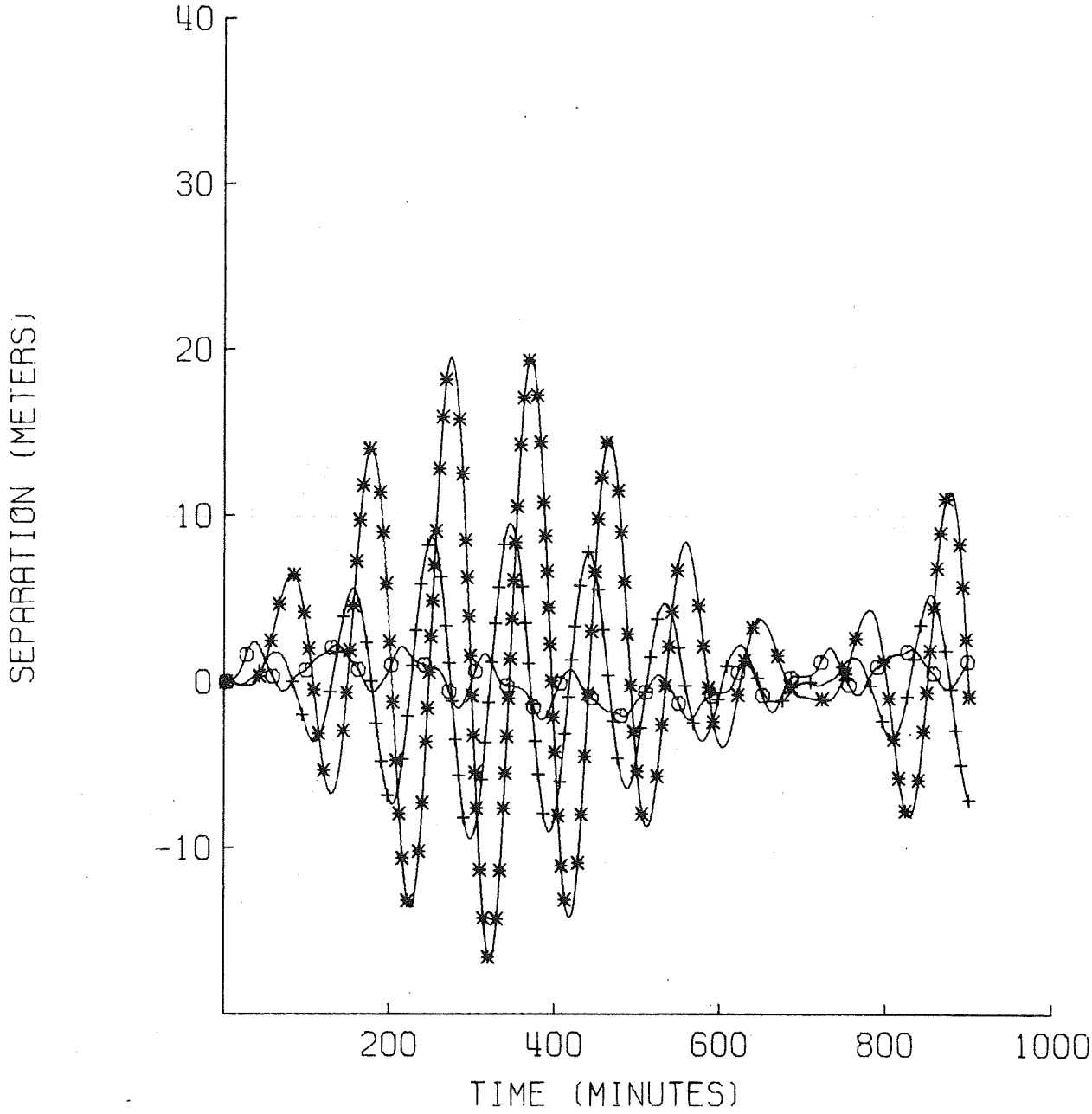
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⦶) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(5 ,2) = -.1339
FACTØR USED IS 1.000000

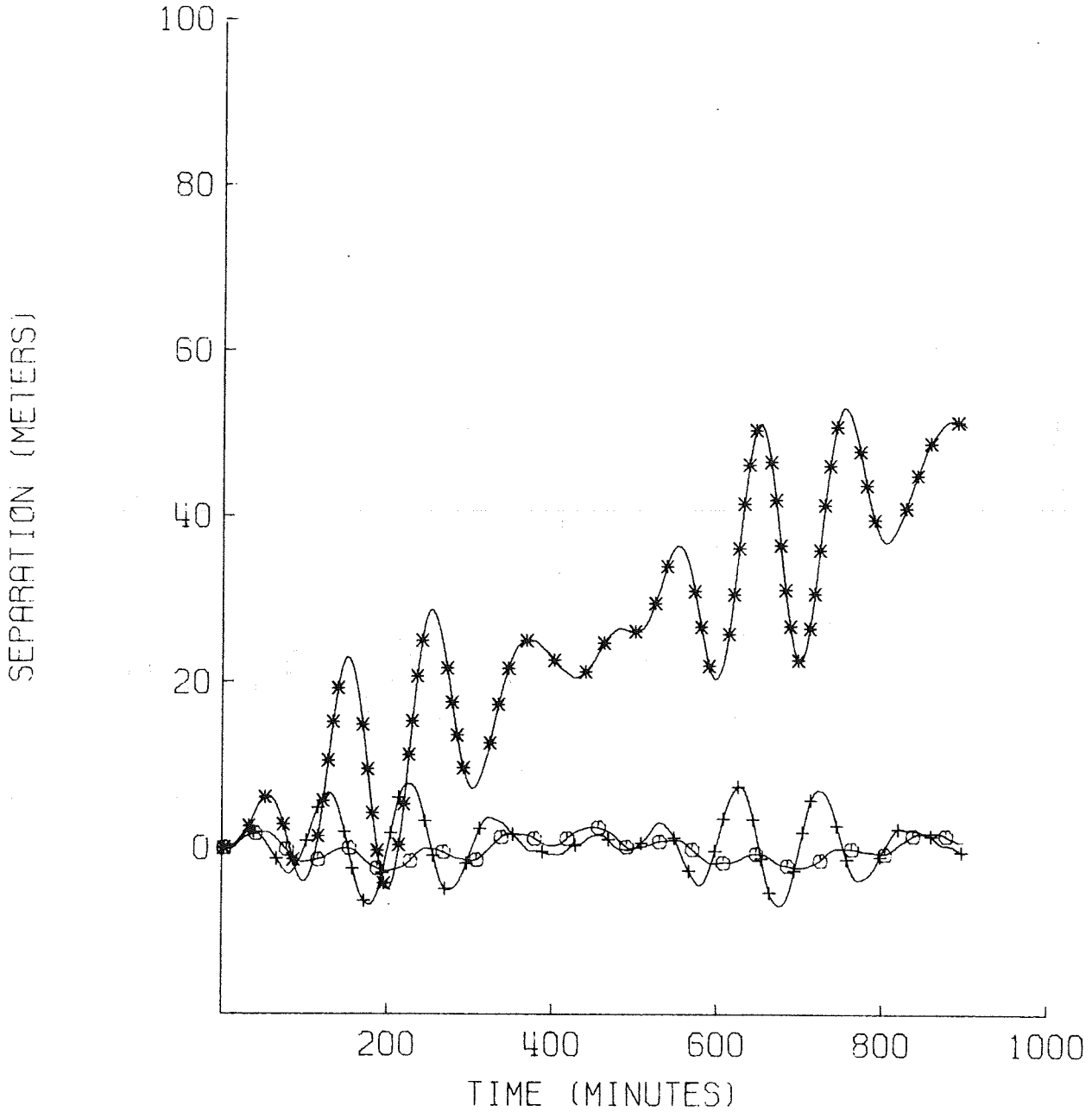
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(5 ,3) = -.1203
FACTØR USED IS 1.000000

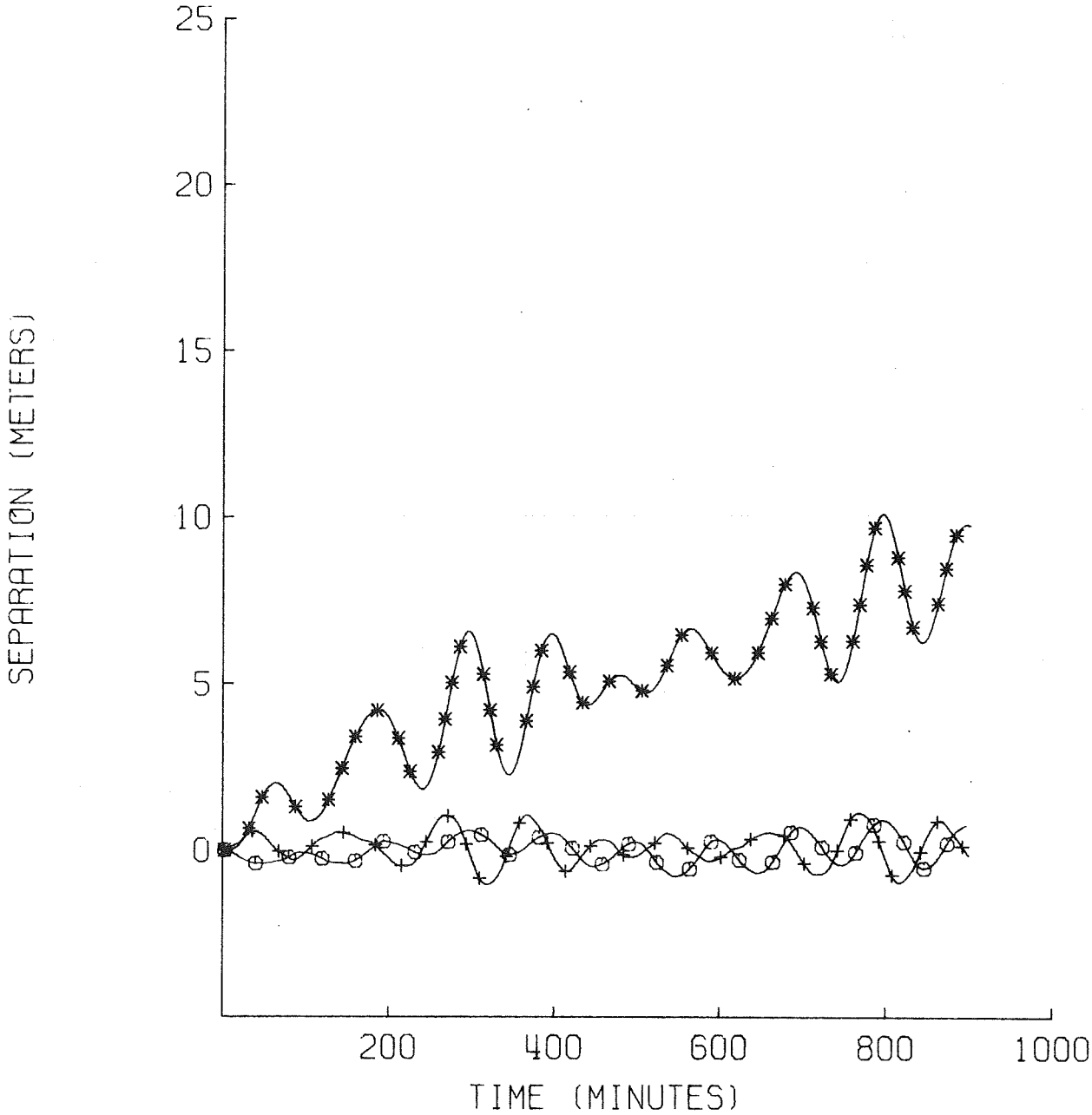
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(5 ,3) = -.0209
FACTØR USED IS 1.000000

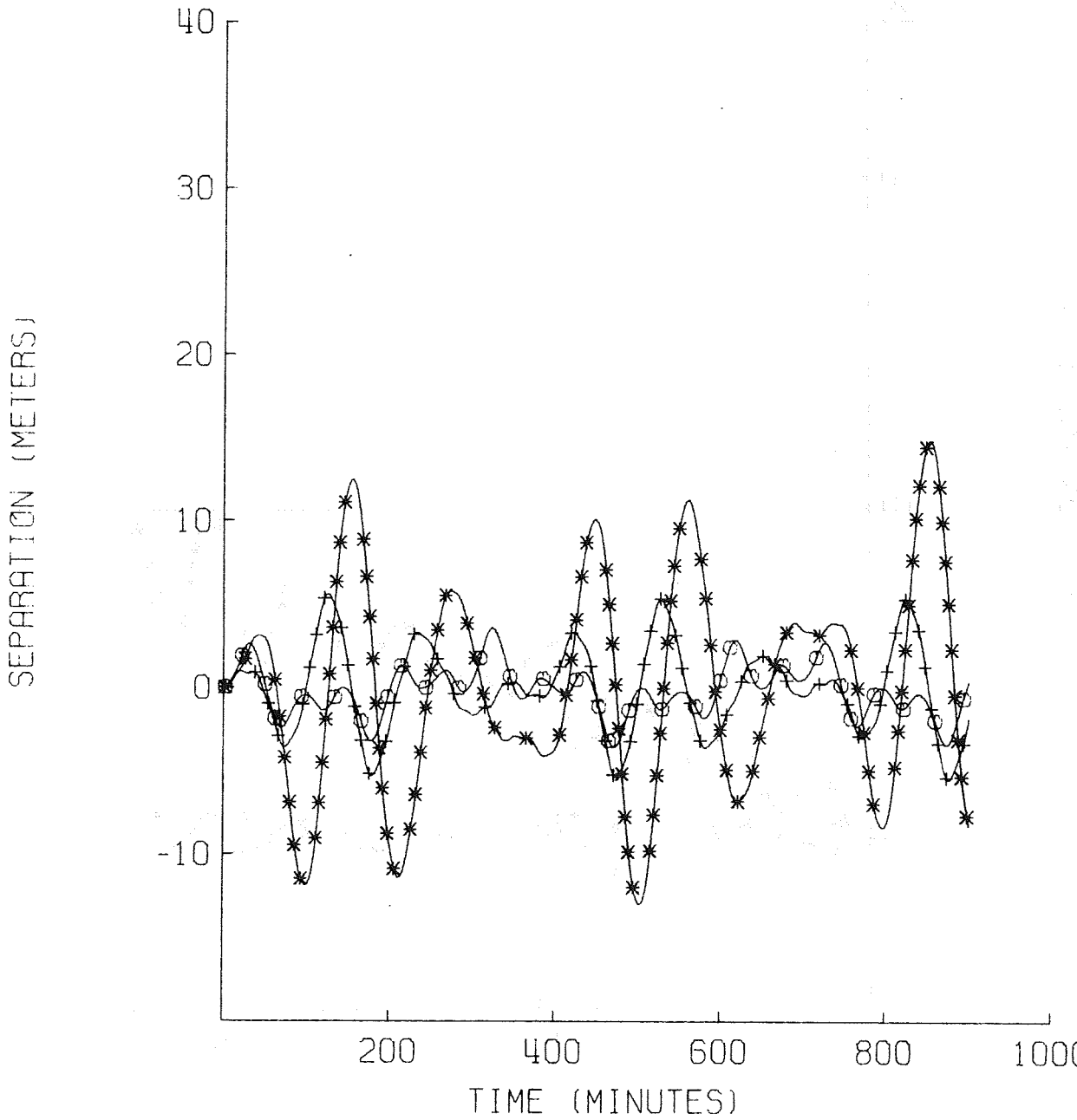
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(5 ,4) = .1371
FACTØR USED IS 1.000000

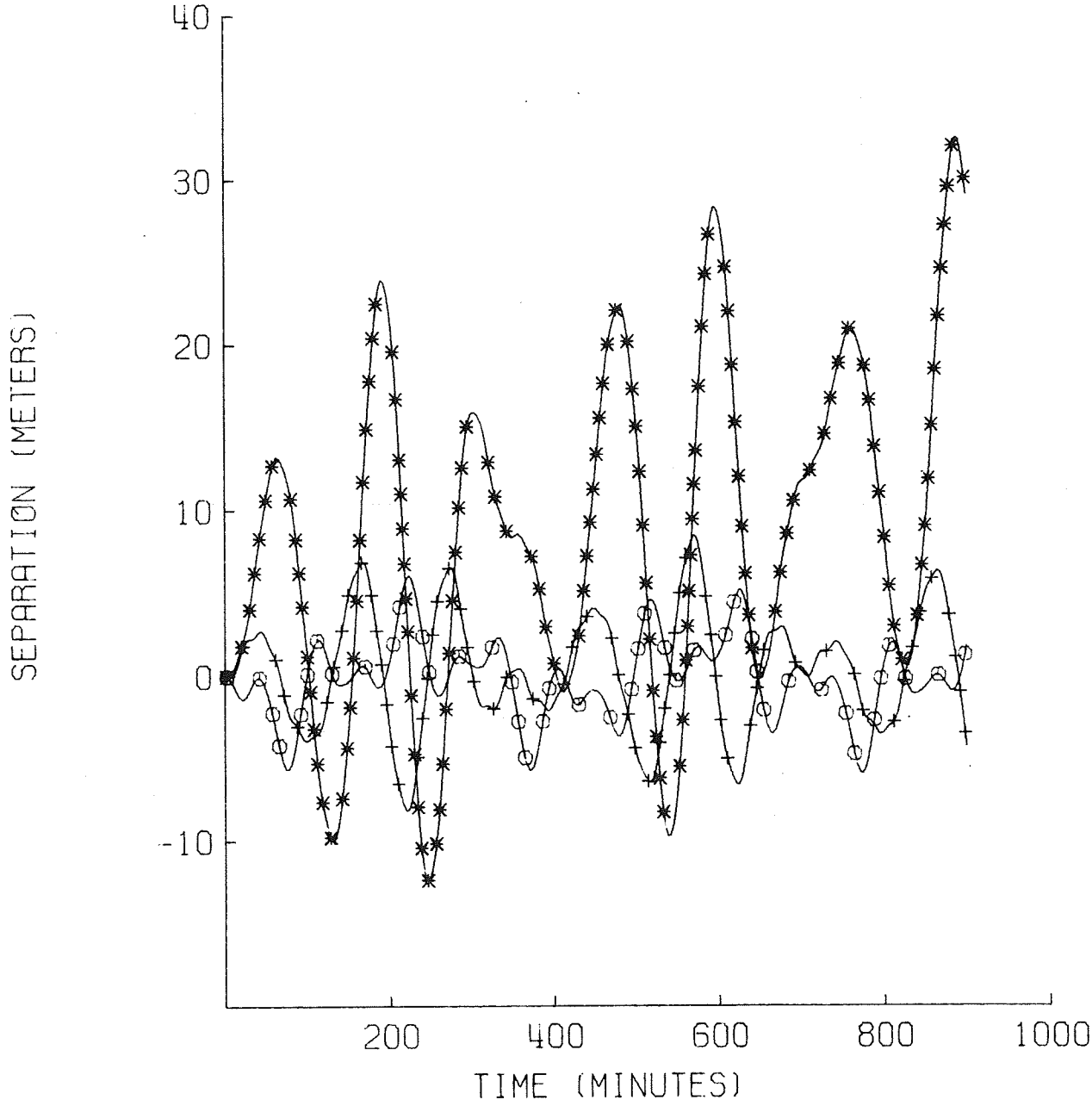
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(5 ,4) = .2119
FACTØR USED IS 1.000000

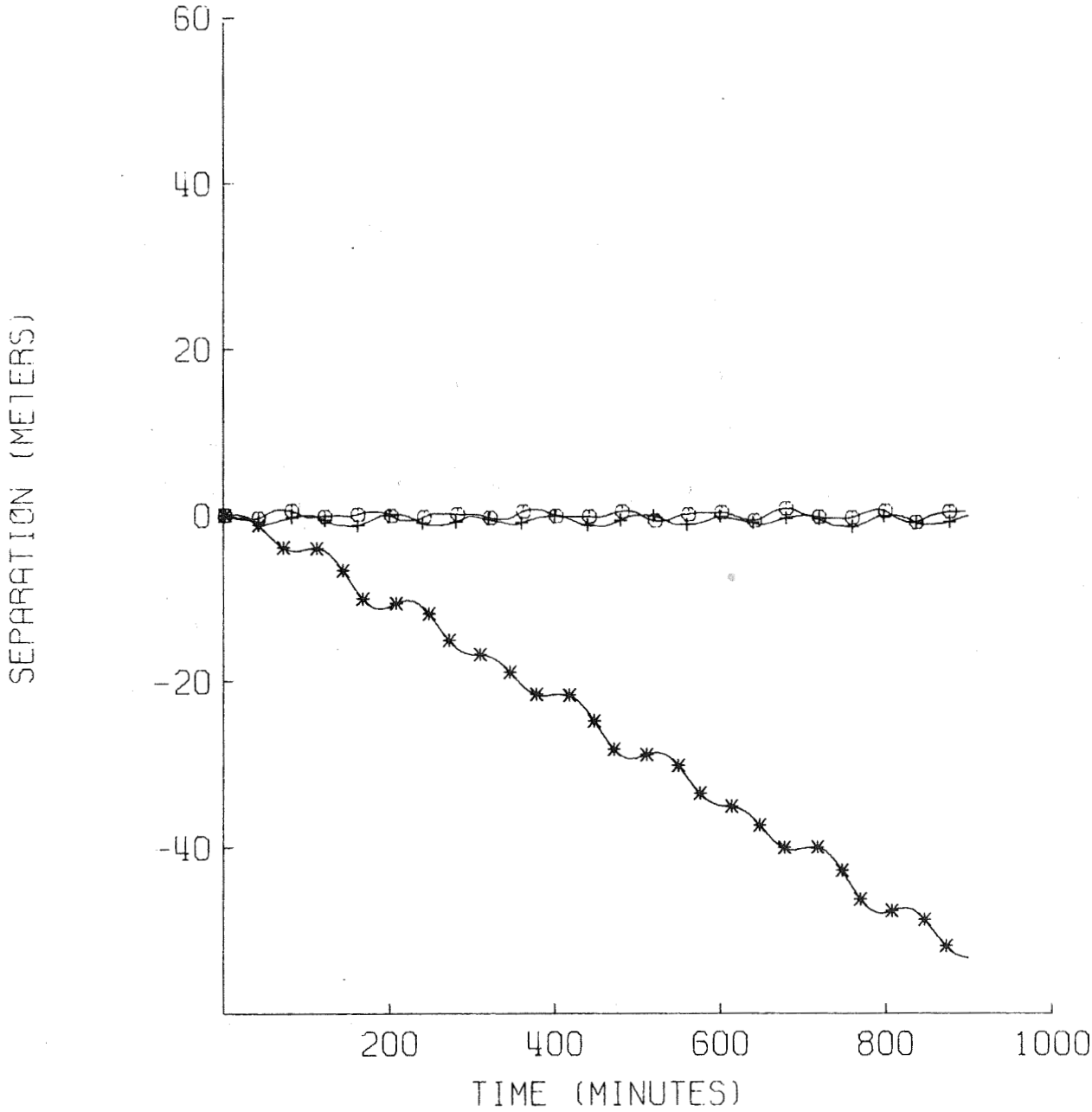
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(5 ,5) = .0317
FACTOR USED IS 1.000000

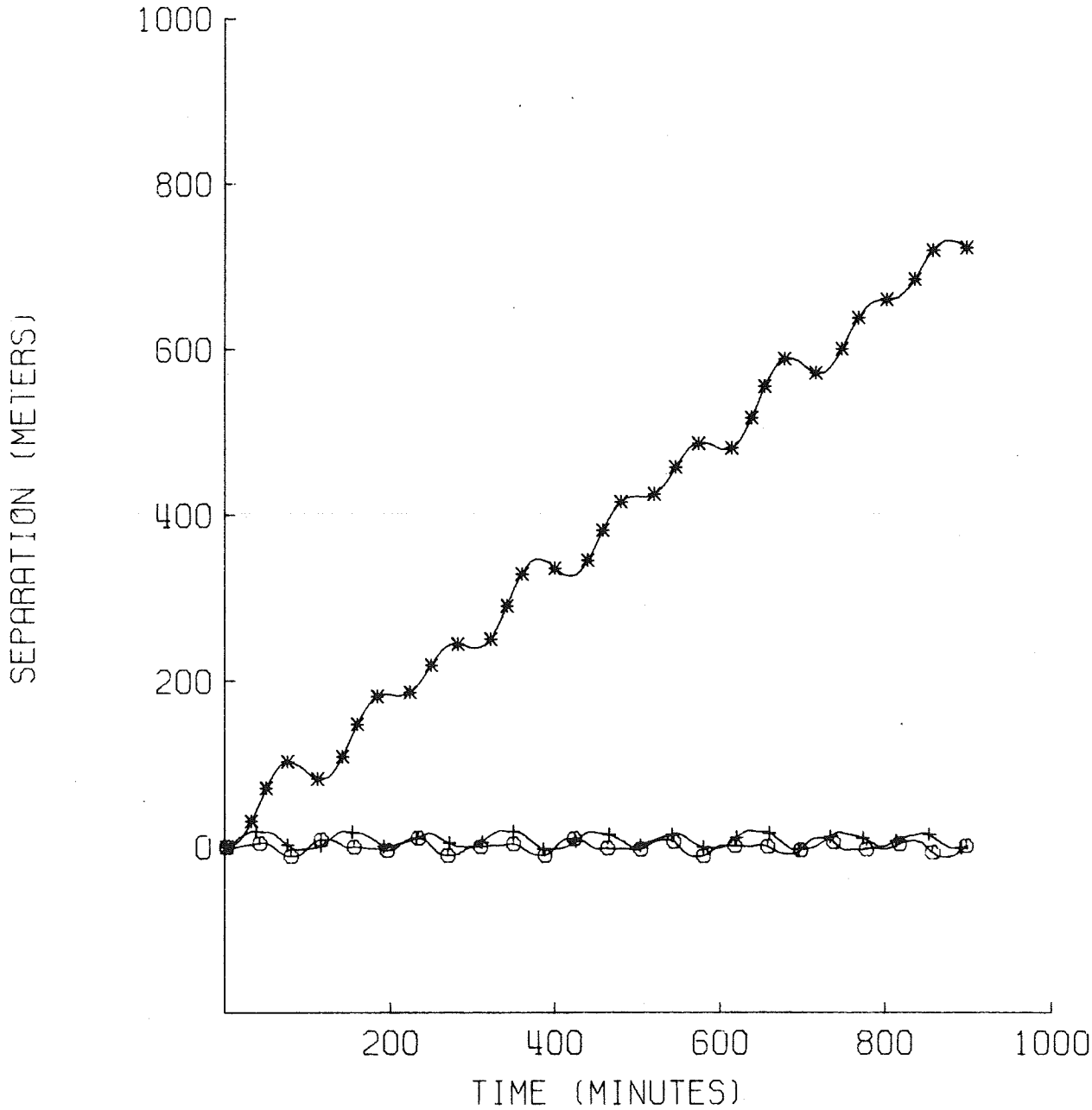
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(5 ,5) = -.5727
FACTØR USED IS 1.000000

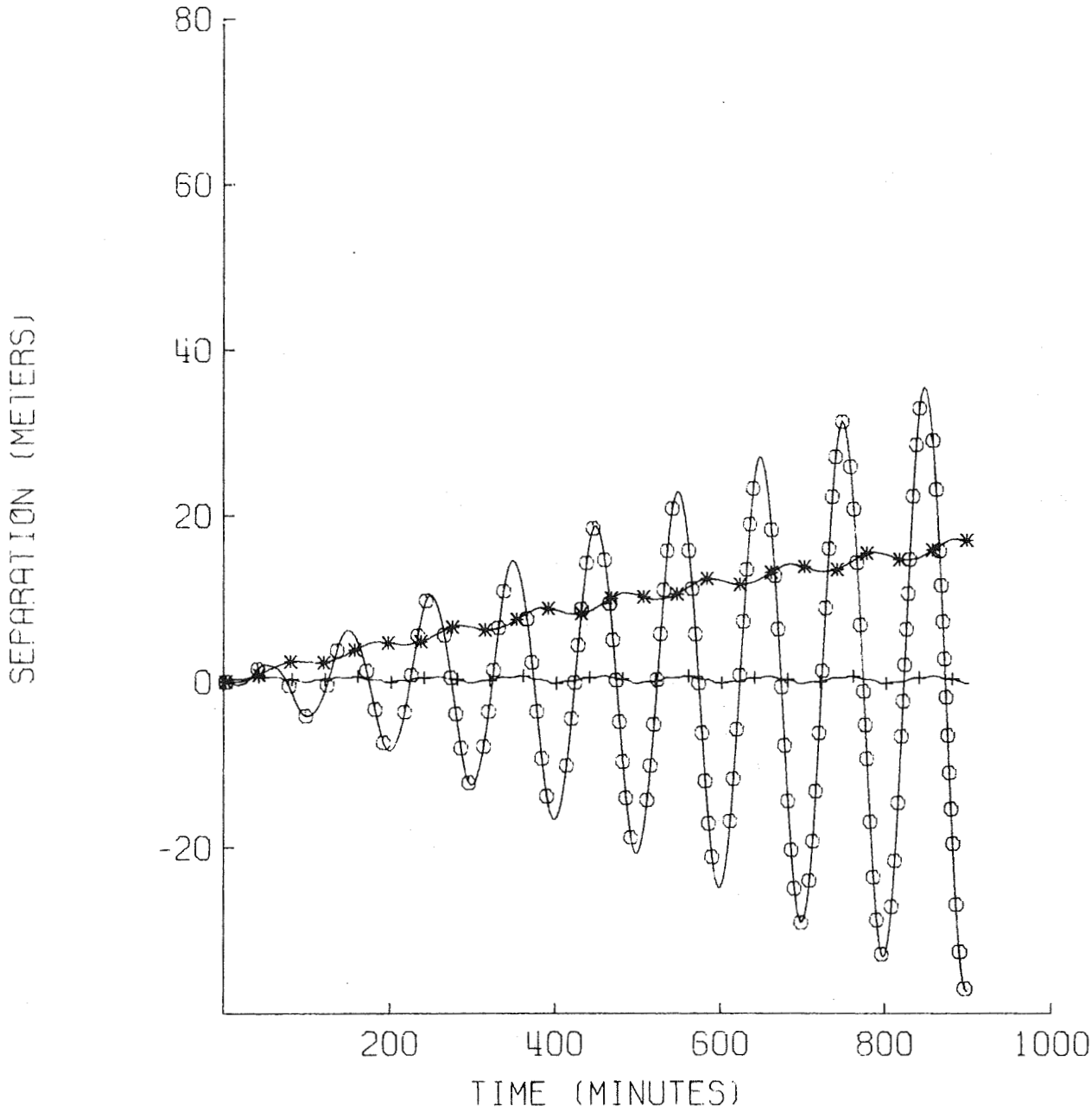
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(6 ,0) = -.0703
FACTØR USED IS 1.000000

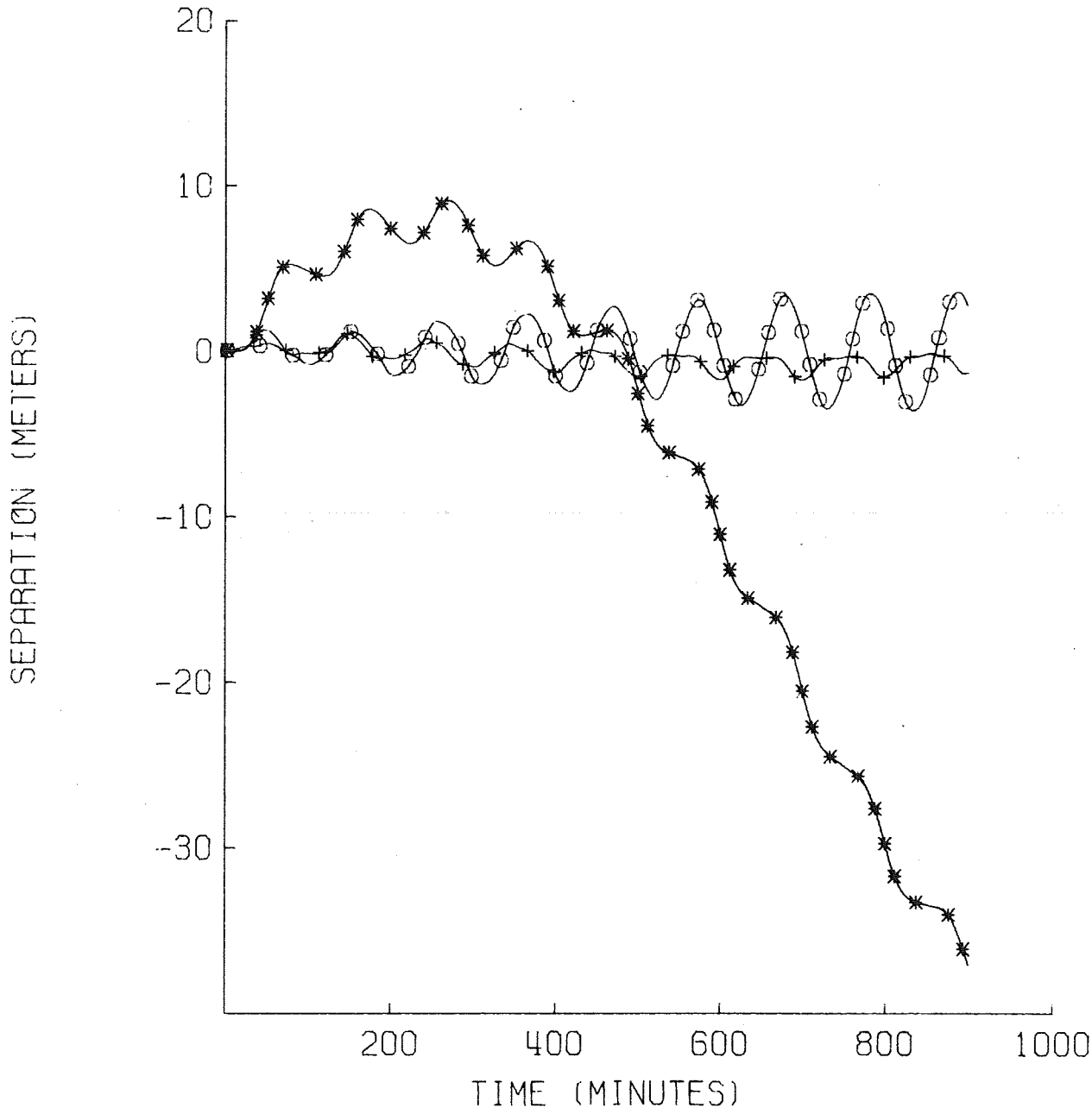
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⏀) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(6 ,1) = -.0834
FACTØR USED IS 1.000000

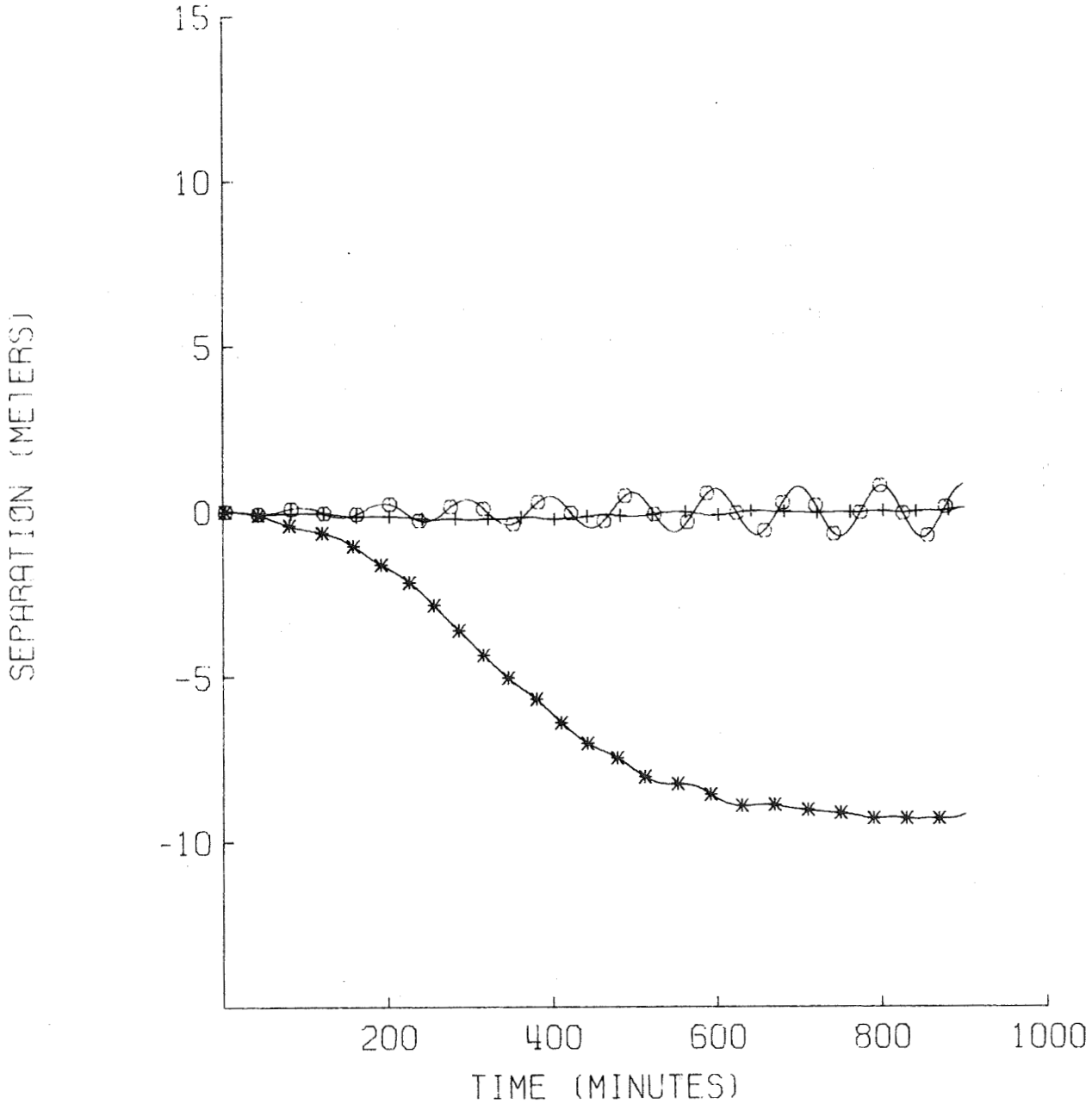
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(6 ,1) = -.0062
FACTOR USED IS 1.000000

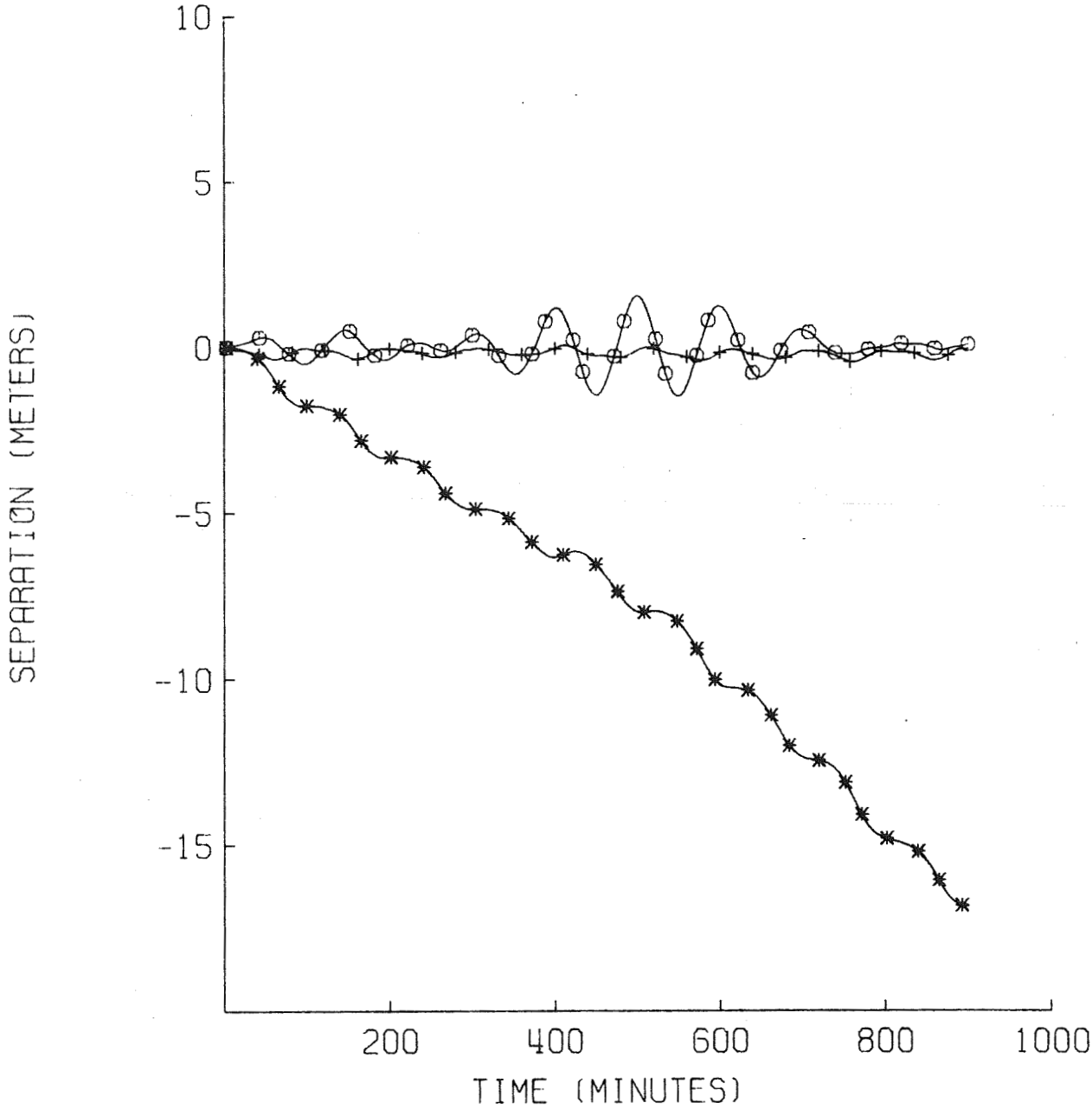
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(6 ,2) = .0153
FACTØR USED IS 1.000000

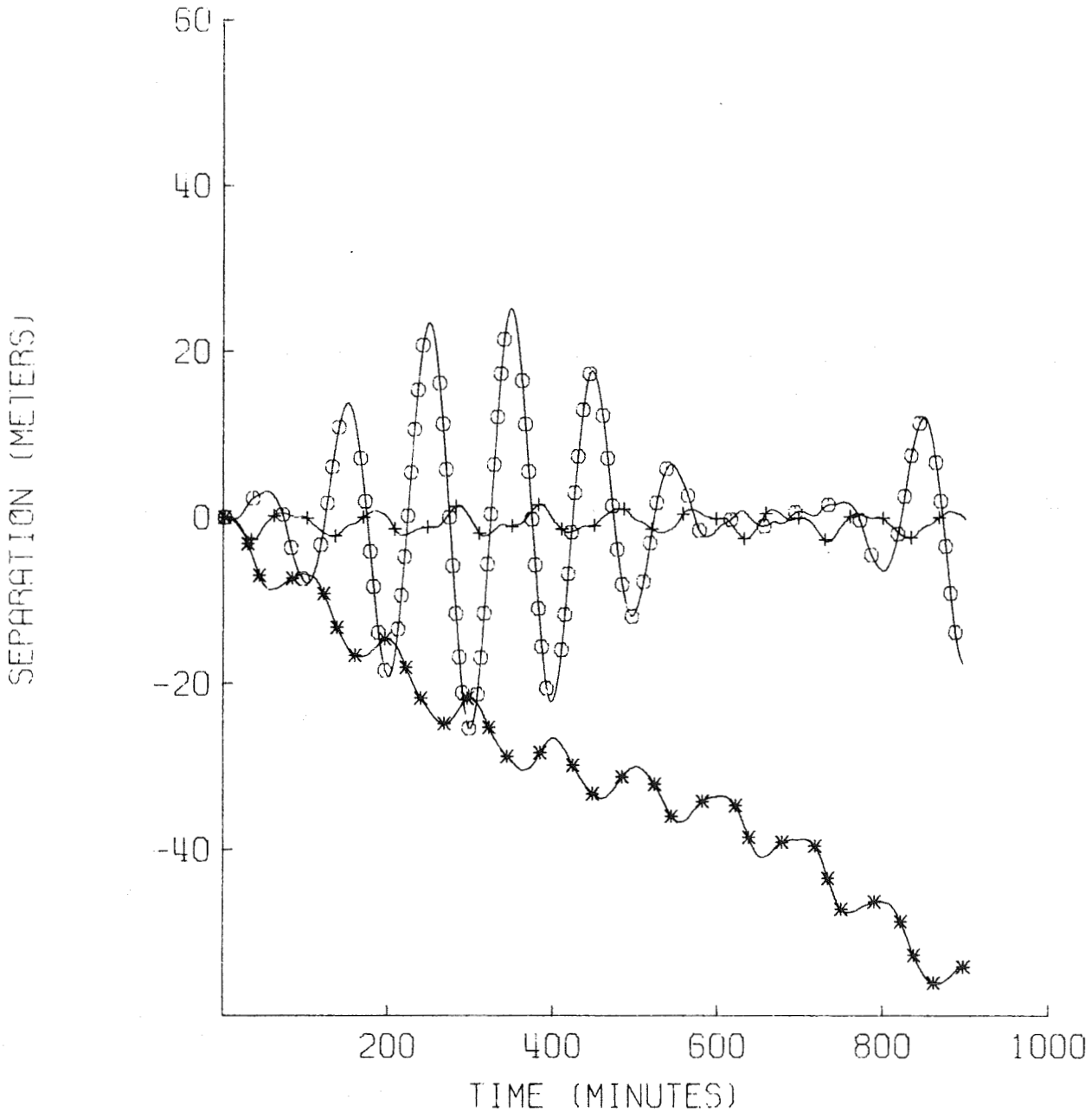
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(6 ,2) = -.2185
FACTOR USED IS 1.000000

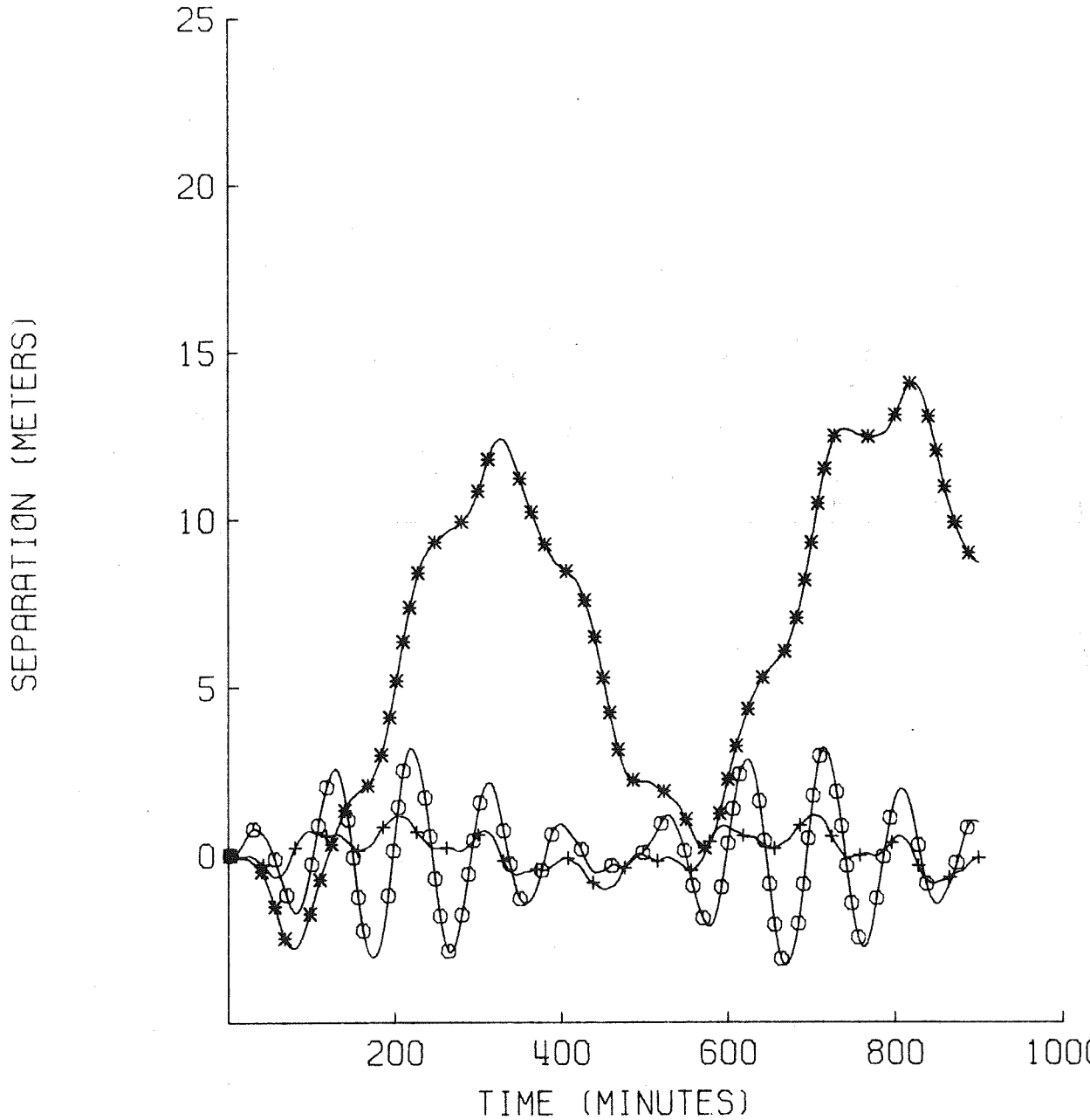
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(6 ,3) = -.0486
FACTØR USED IS 1.000000

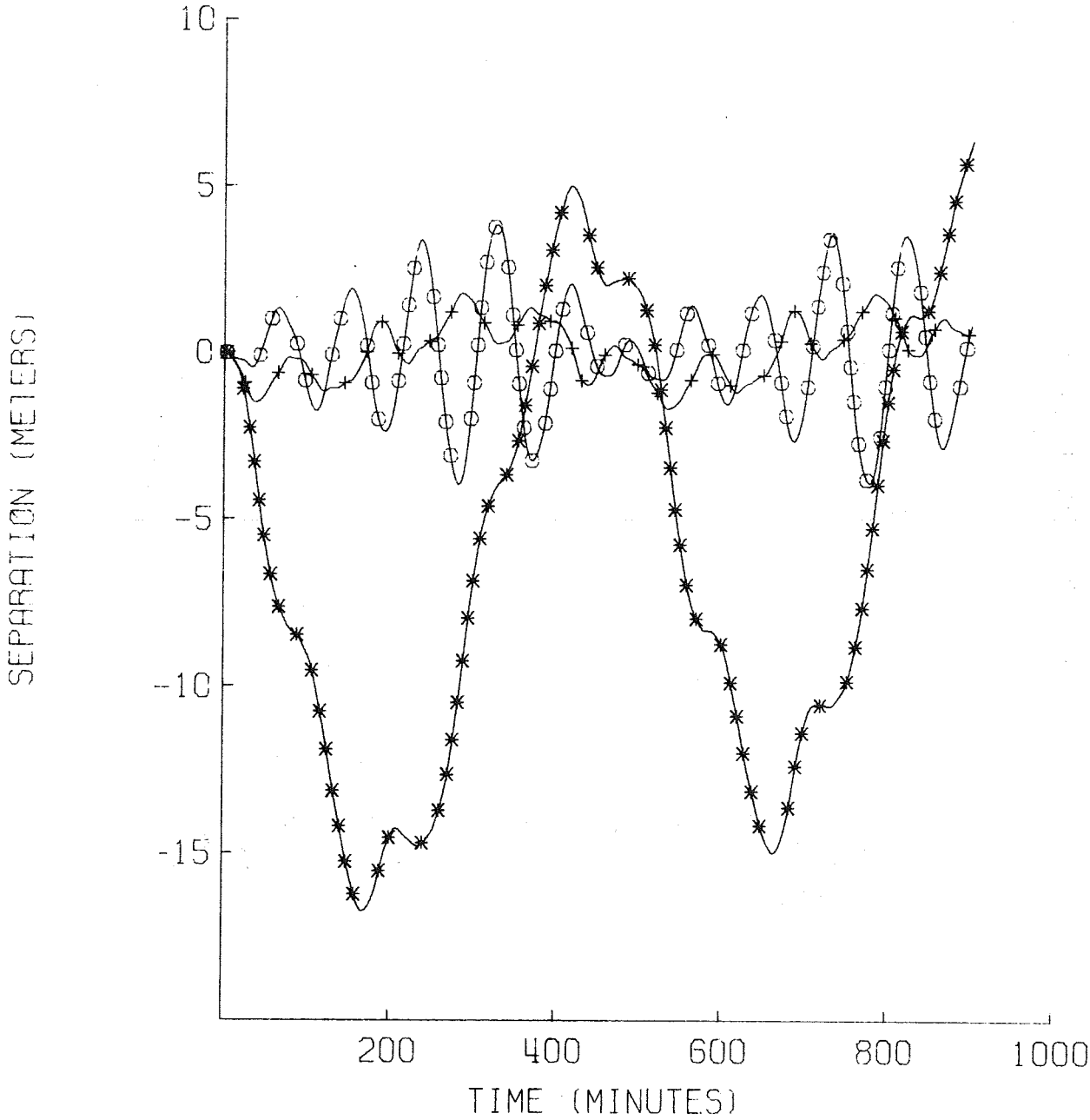
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⦶) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(6 ,3) = .0774
FACTOR USED IS 1.000000

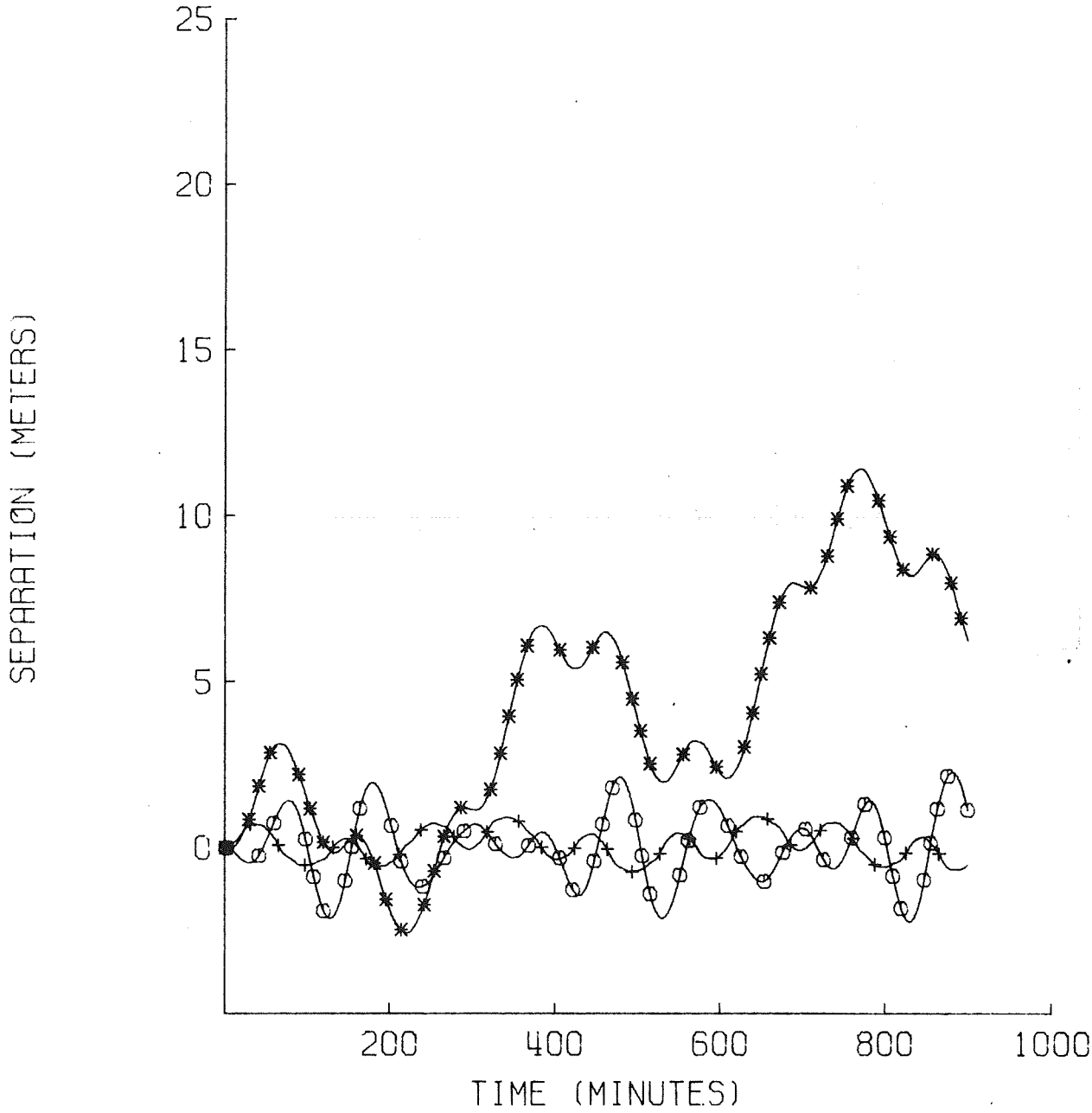
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(6 ,4) = -.0300
FACTØR USED IS 1.000000

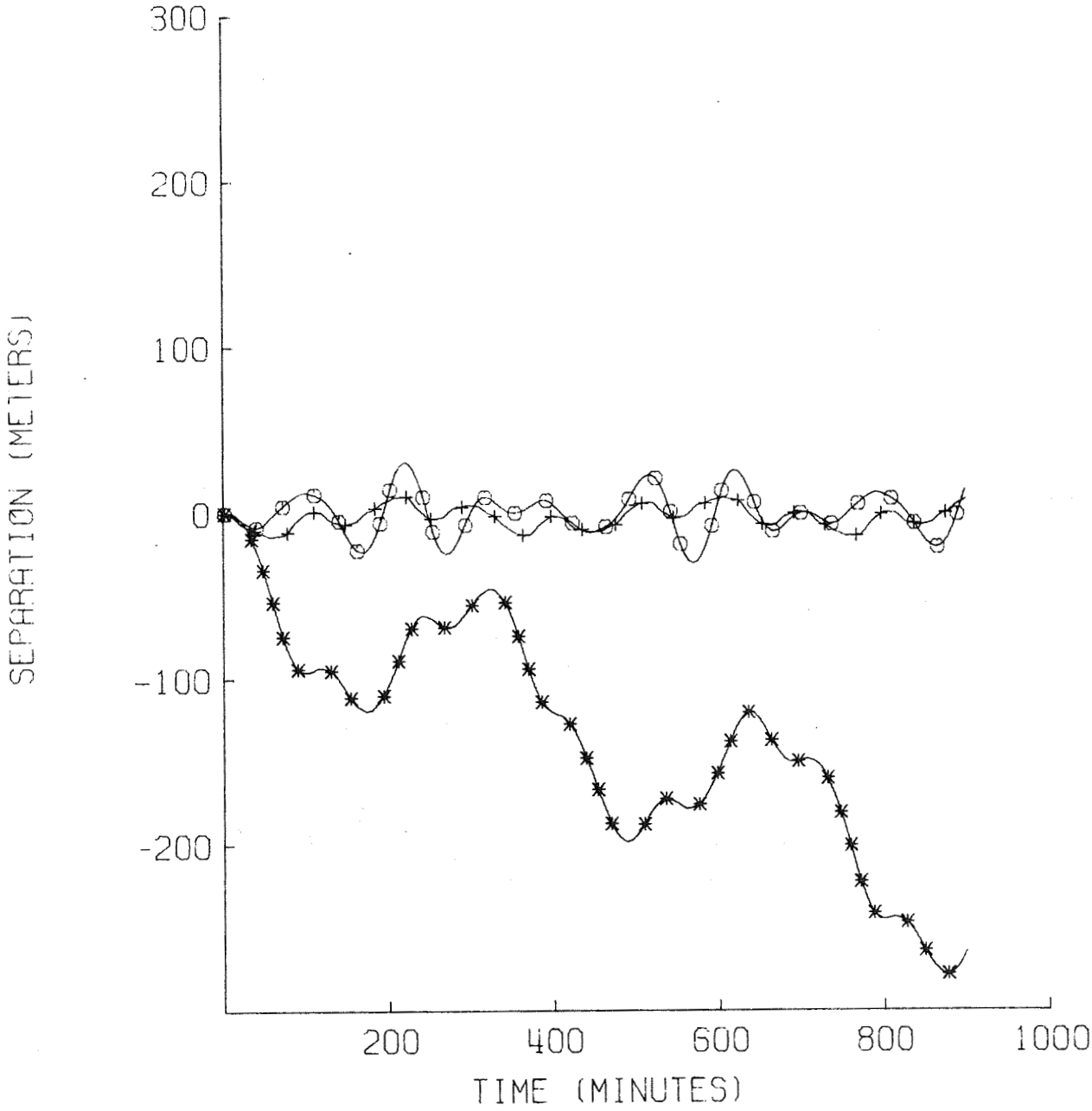
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(6 ,4) = -.4660
FACTOR USED IS 1.000000

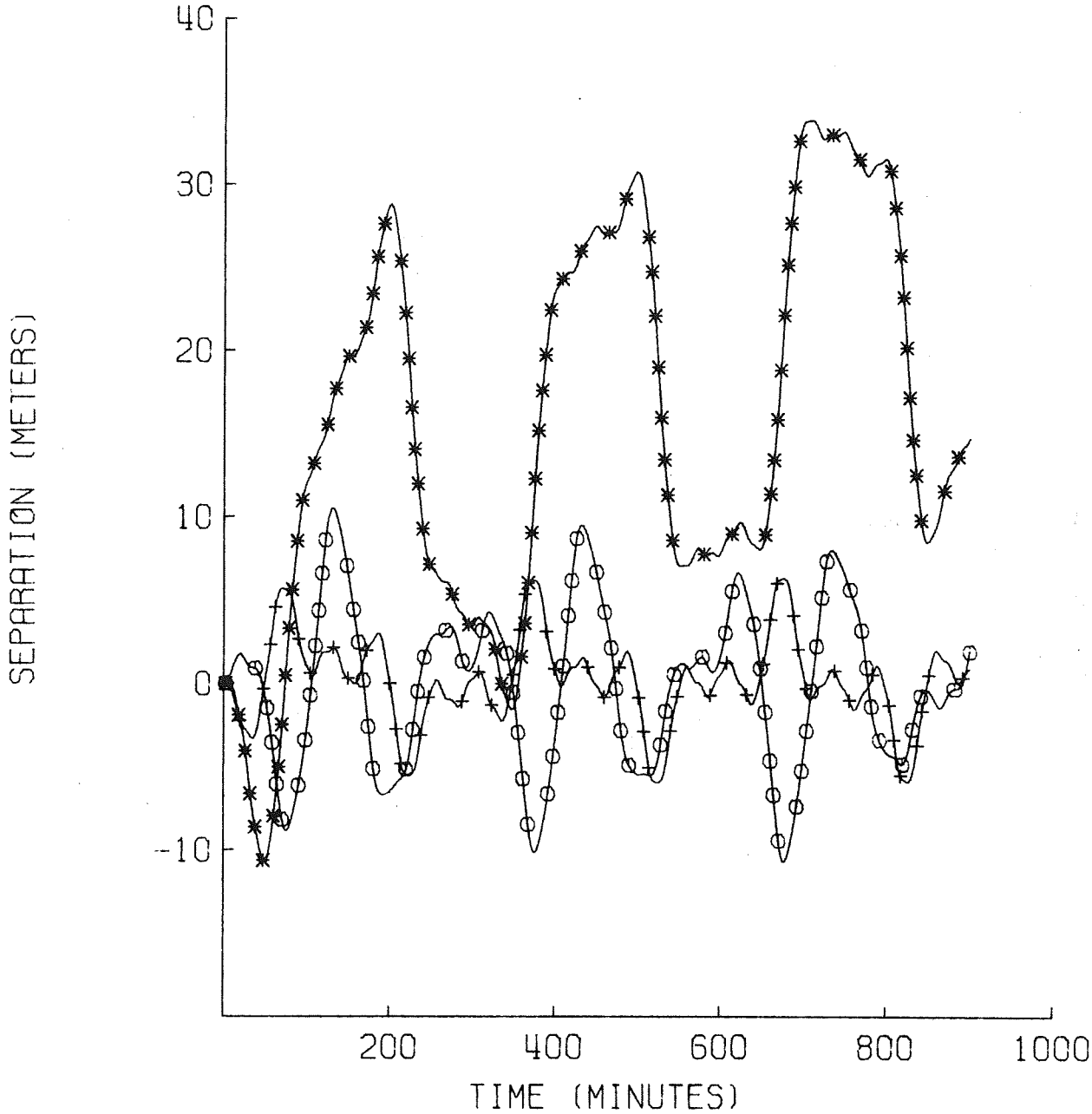
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊖) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(6 ,5) = -.2760
FACTØR USED IS 1.000000

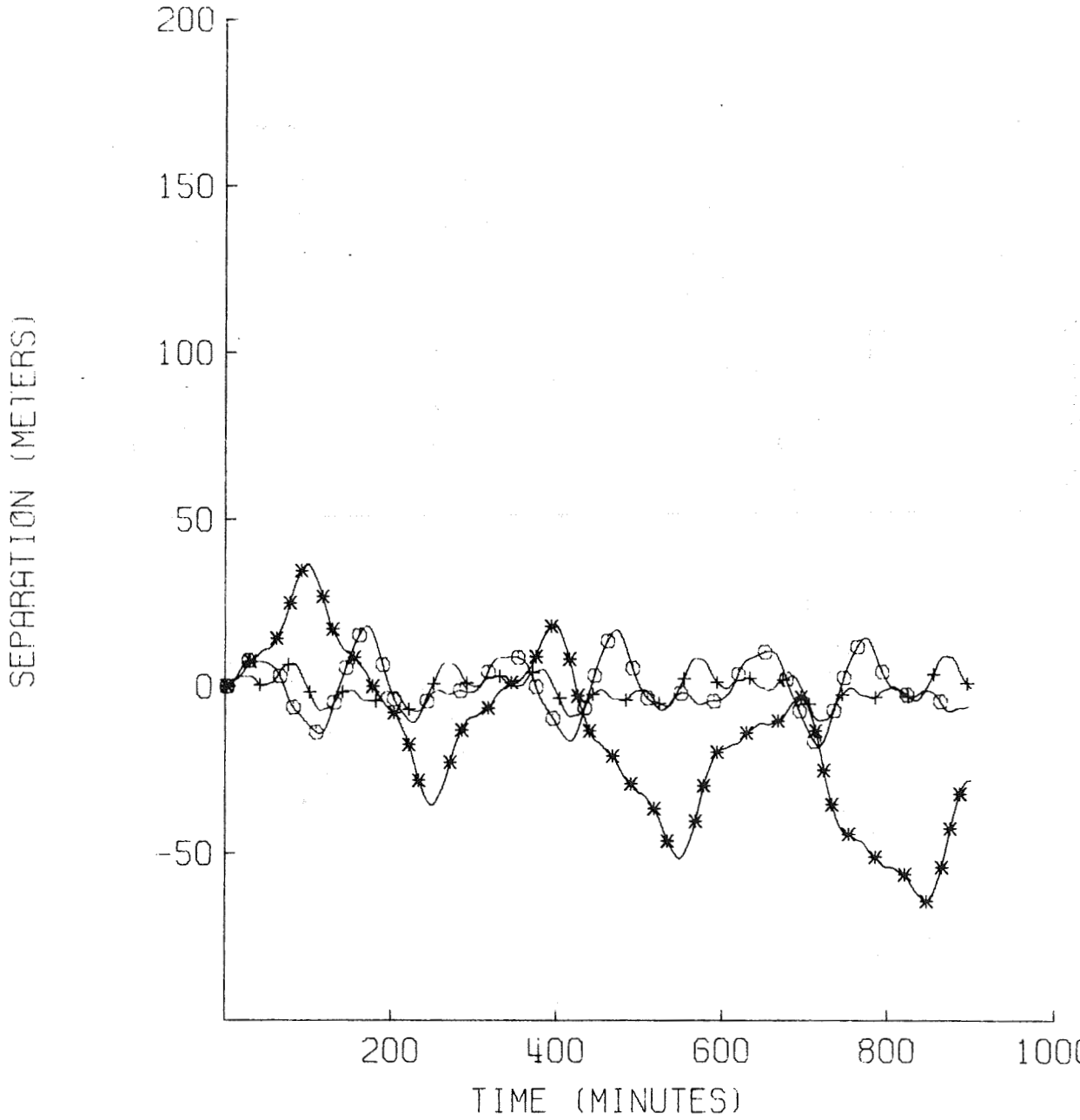
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(6 ,5) = -.4555
FACTOR USED IS 1.000000

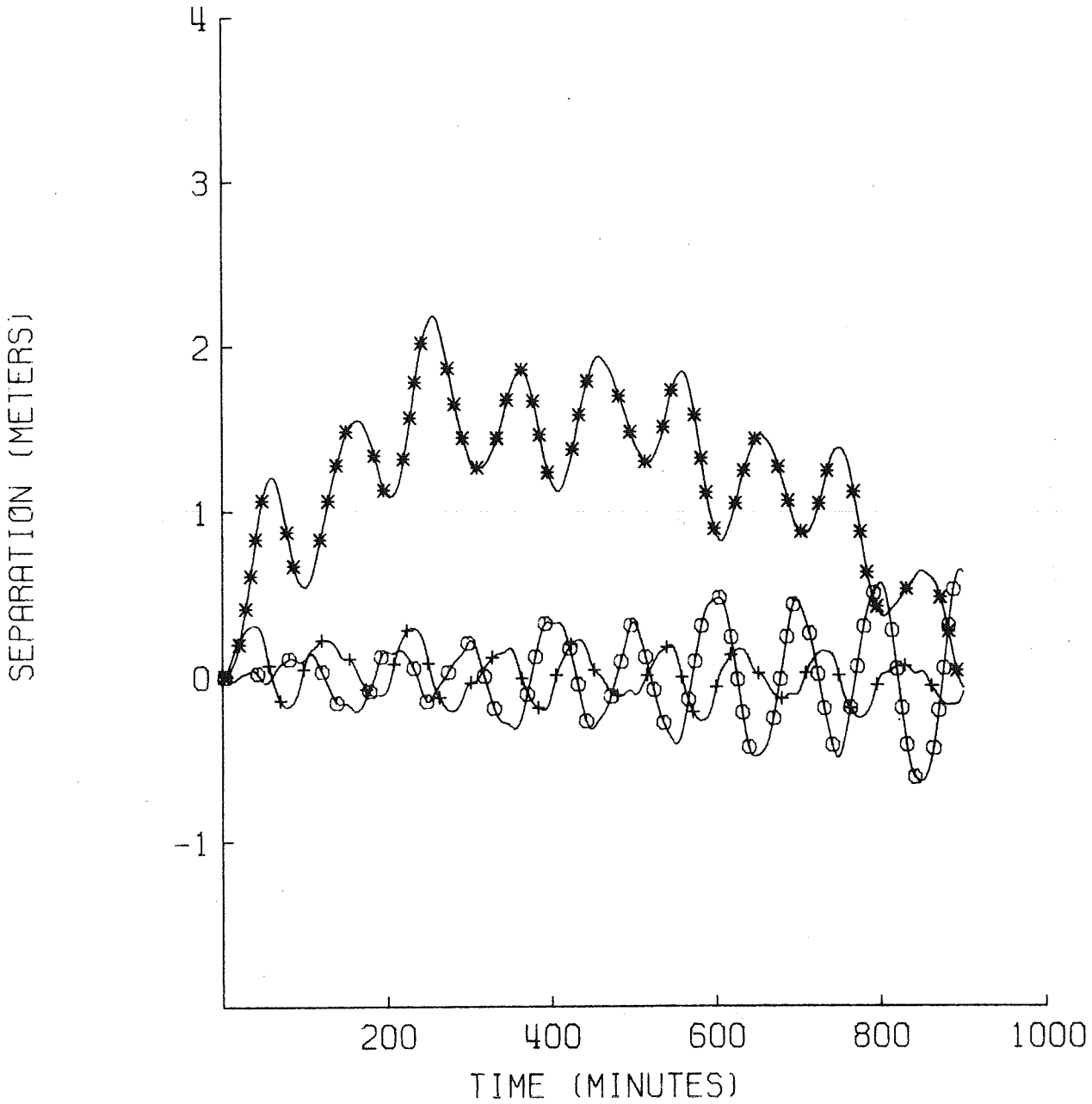
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(6 ,6) = -.0124
FACTØR USED IS 1.000000

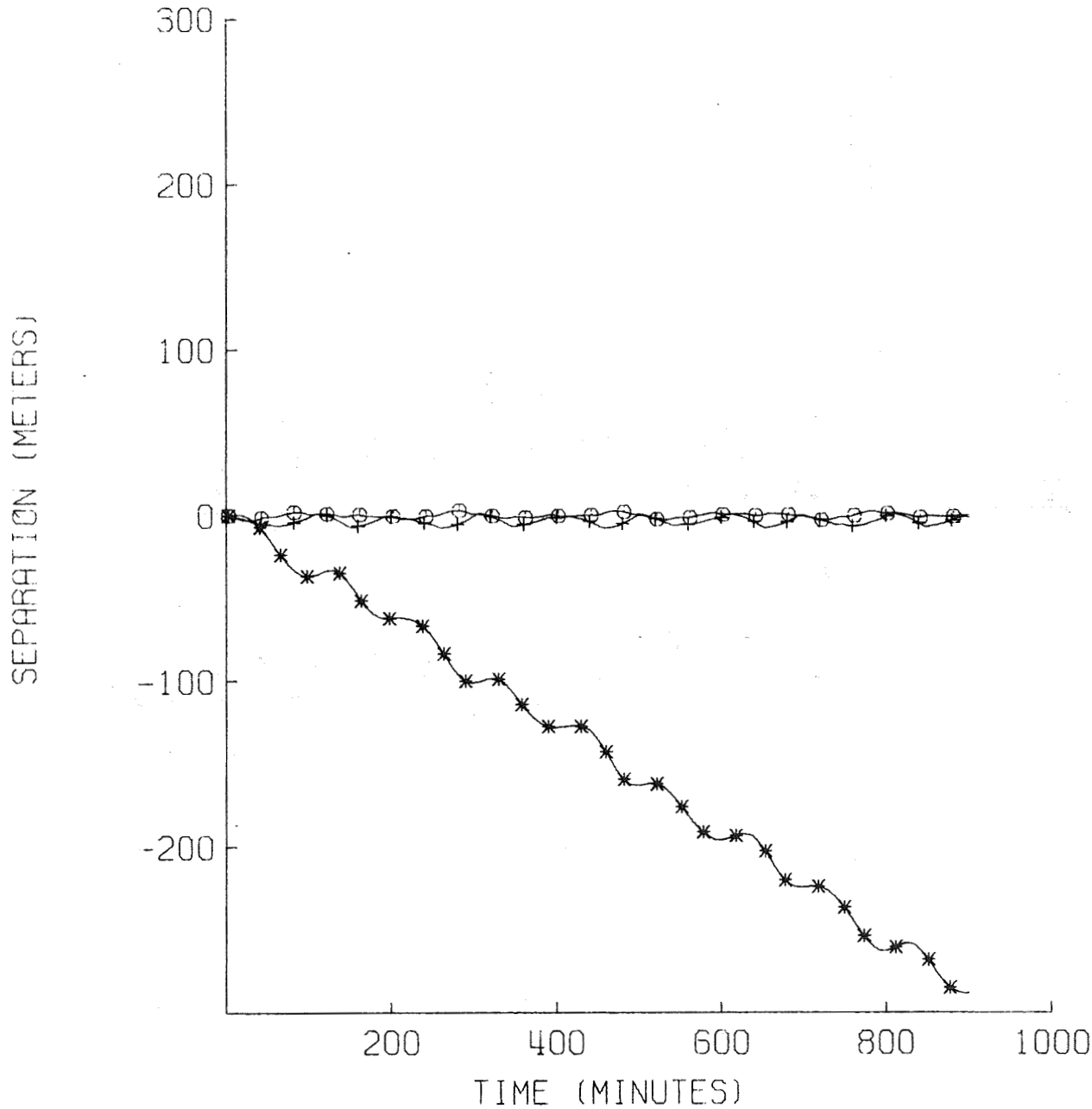
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⦶) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(6 ,6) = -.2009
FACTOR USED IS 1.000000

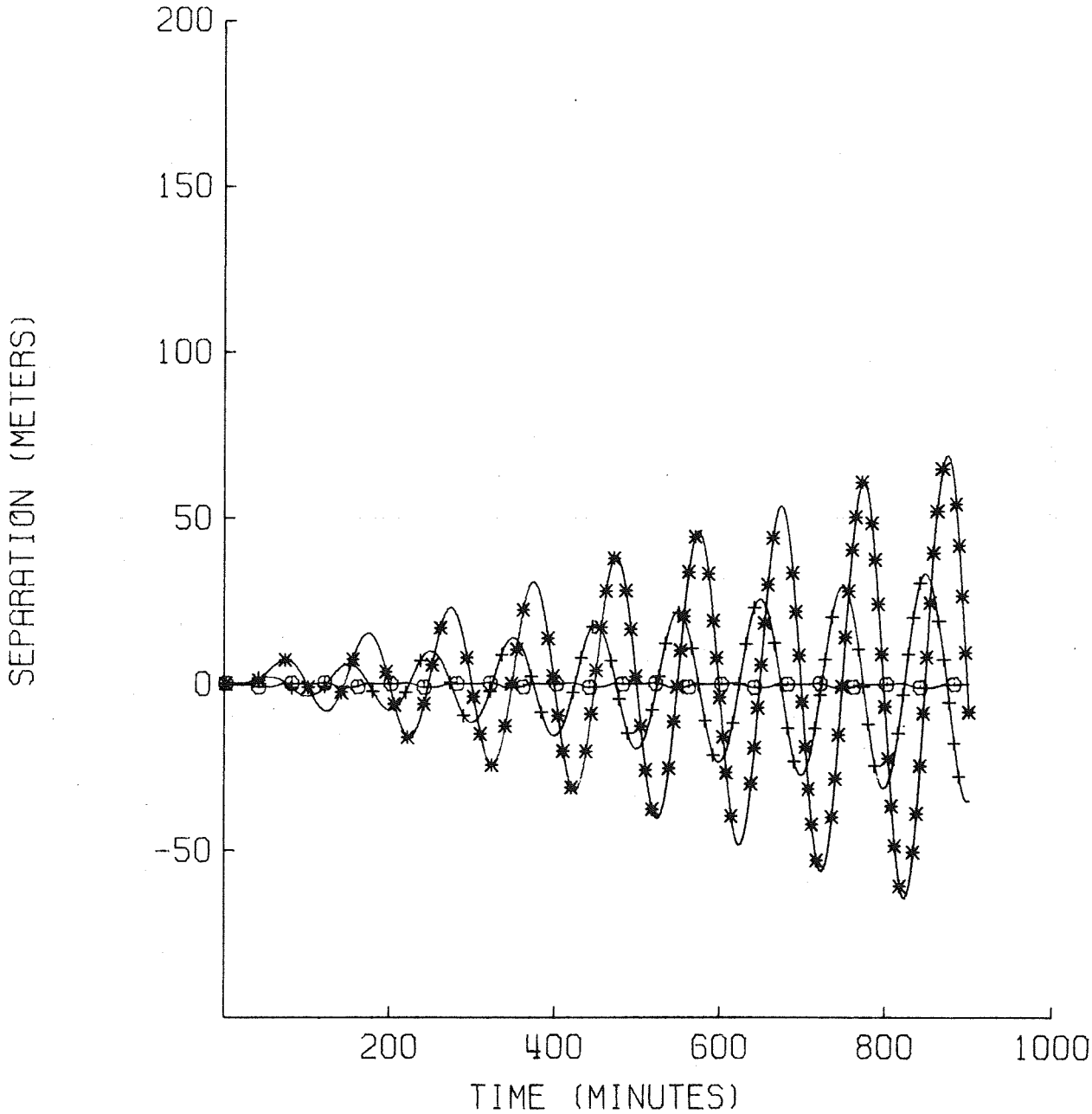
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(7 ,0) = .0890
FACTØR USED IS 1.000000

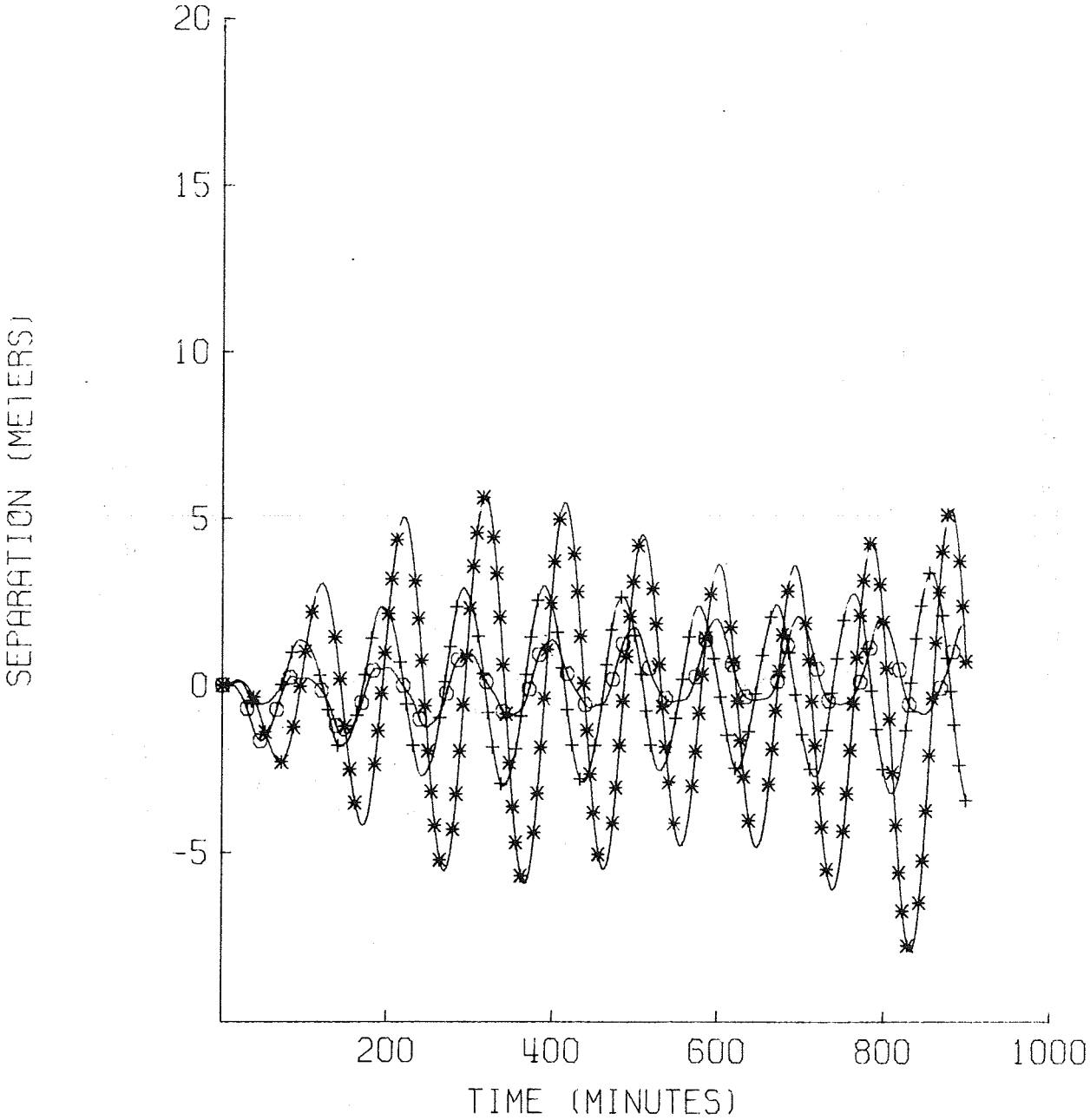
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(7 ,1) = .0996
FACTØR USED IS 1.000000

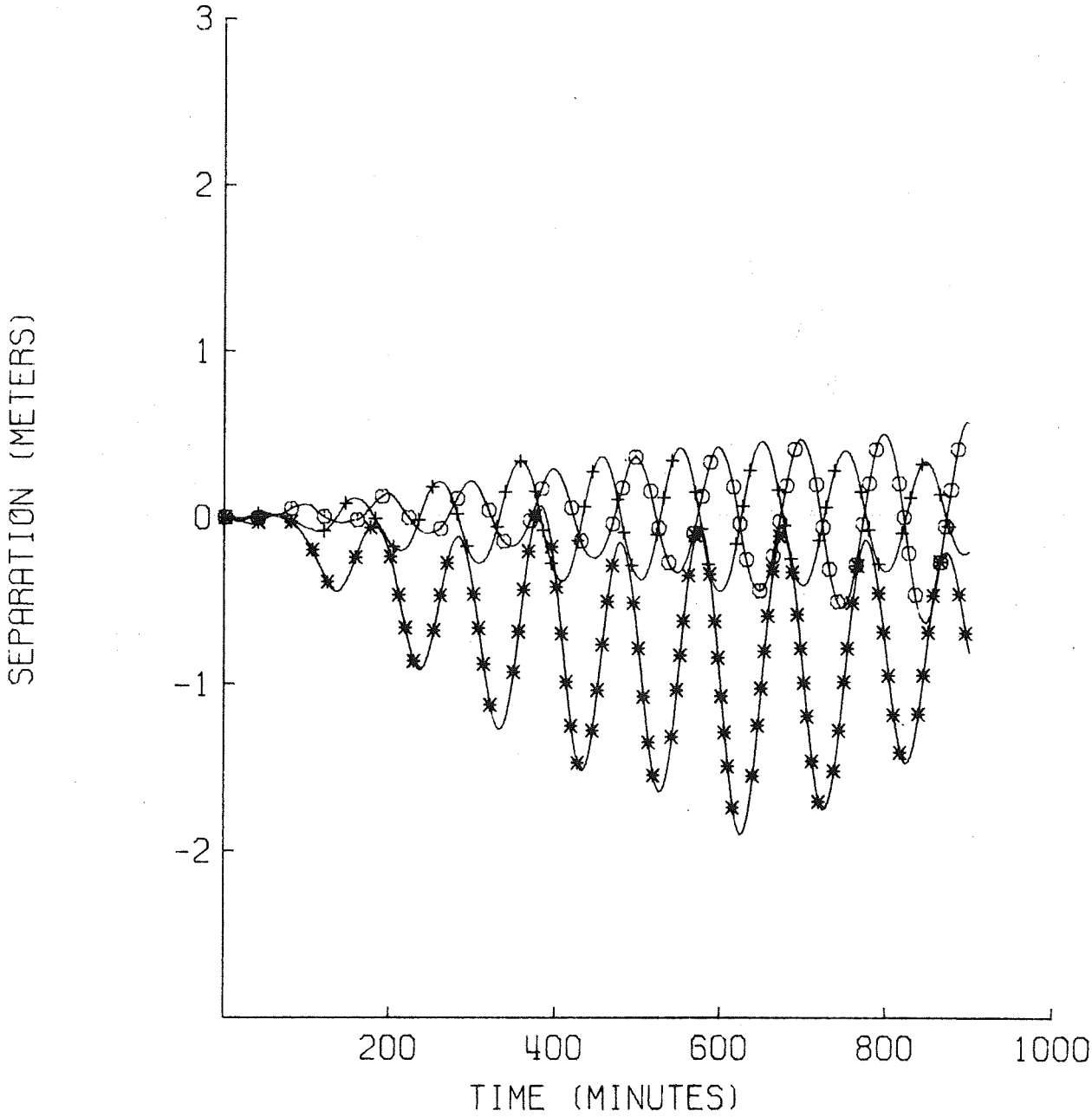
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(7 ,1) = .0062
FACTØR USED IS 1.000000

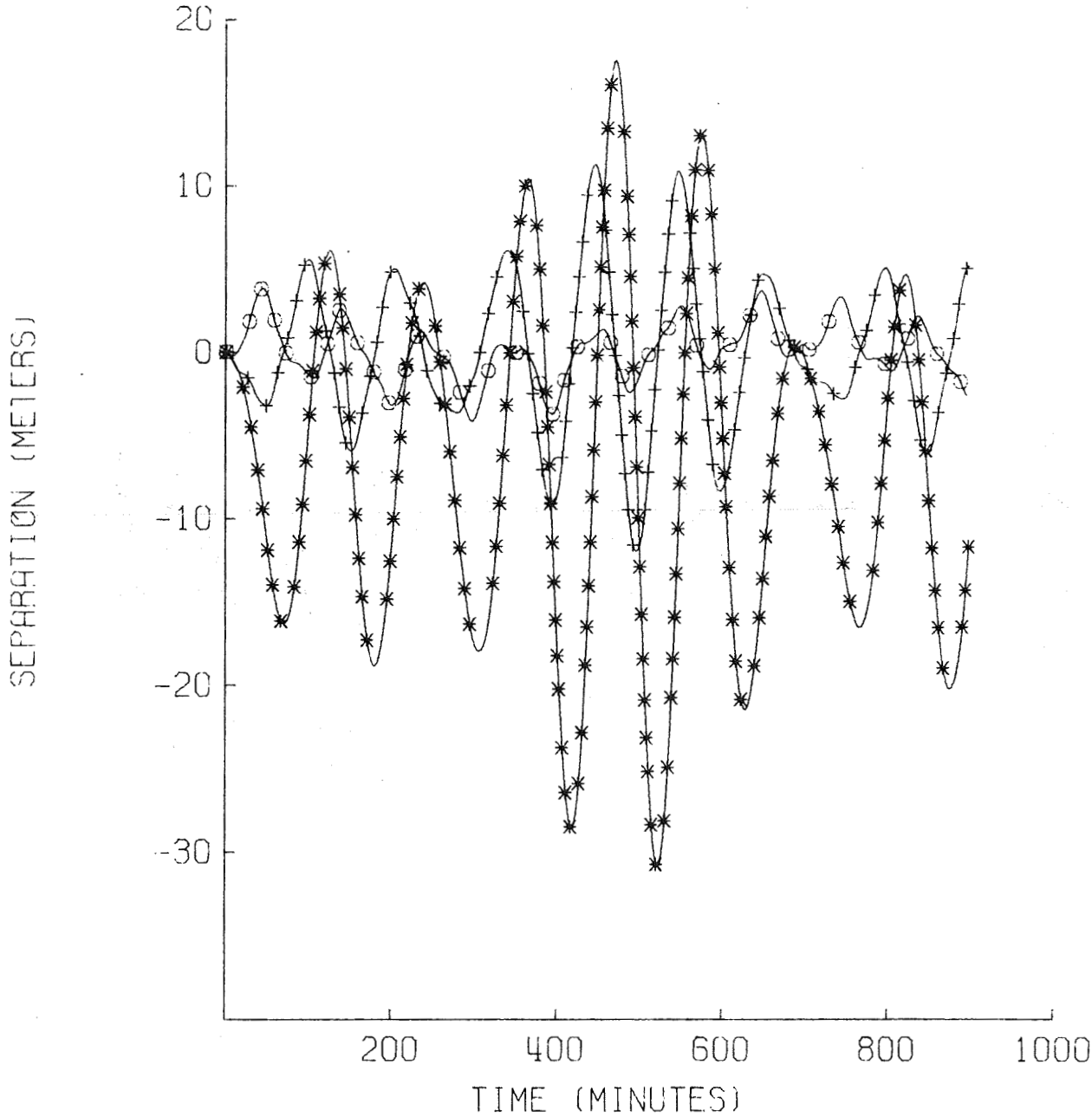
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(7 ,2) = .2632
FACTOR USED IS 1.000000

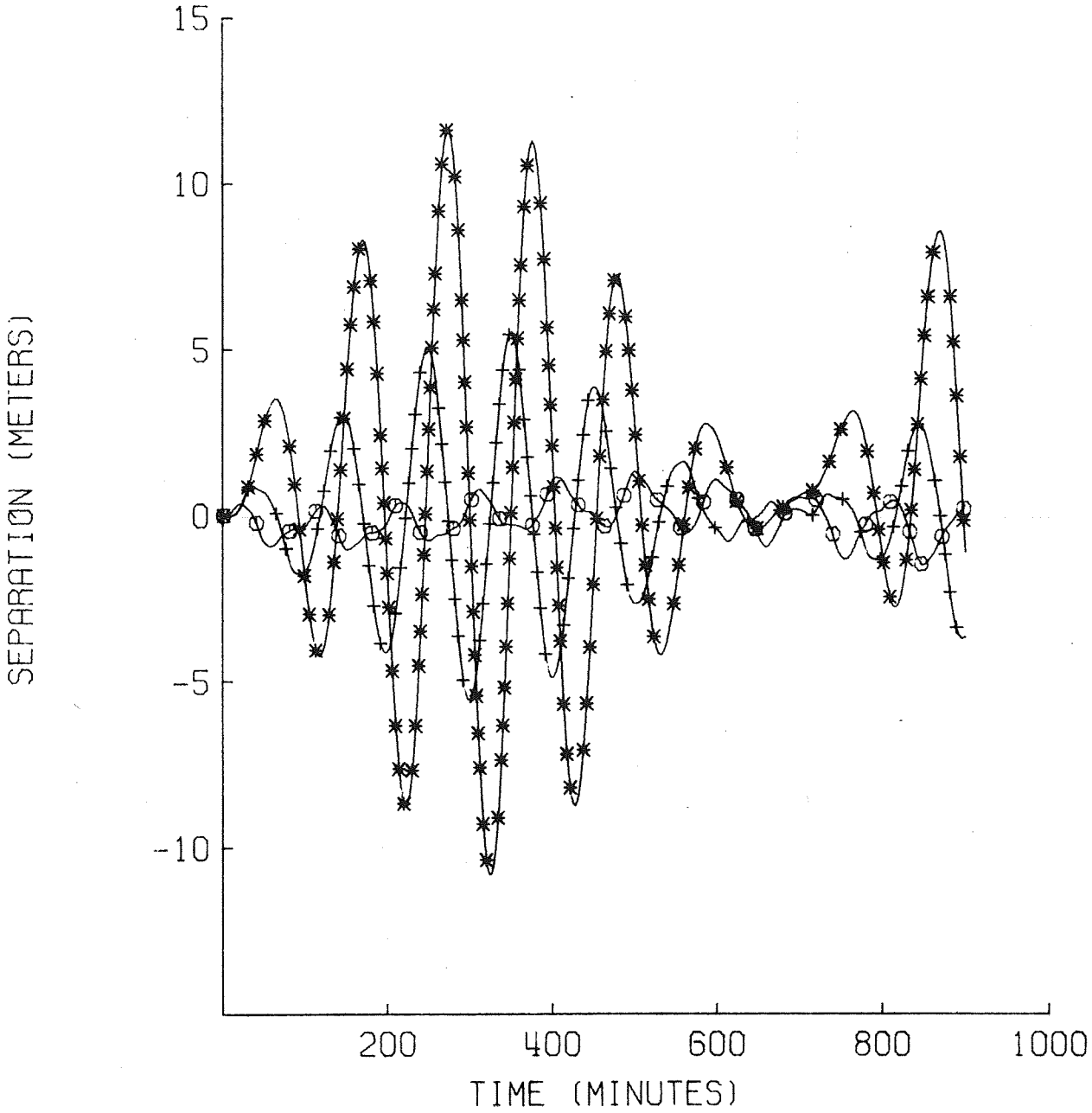
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(7 ,2) = .0832
FACTØR USED IS 1.000000

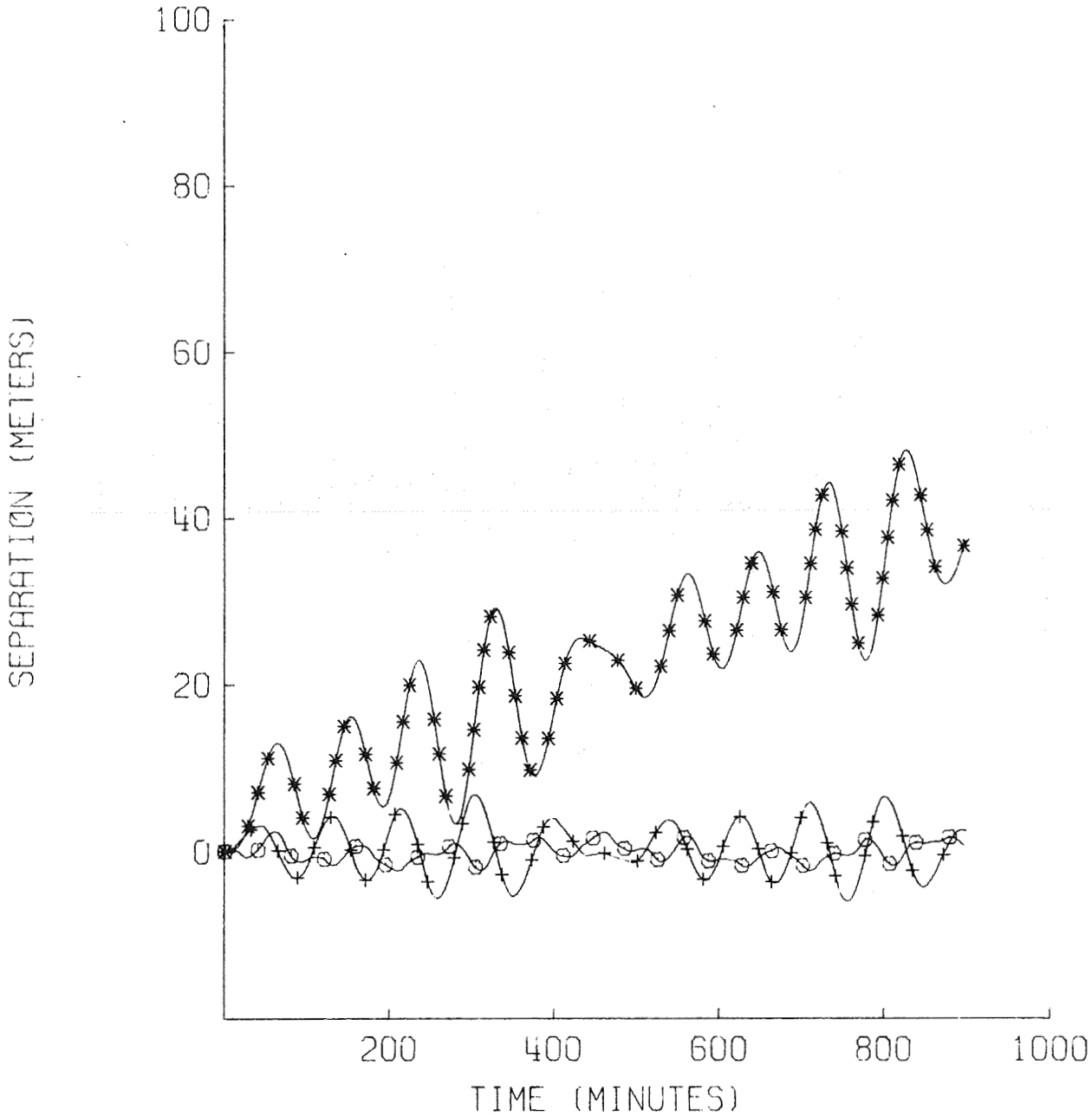
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(7 ,3) = .1540
FACTØR USED IS 1.000000

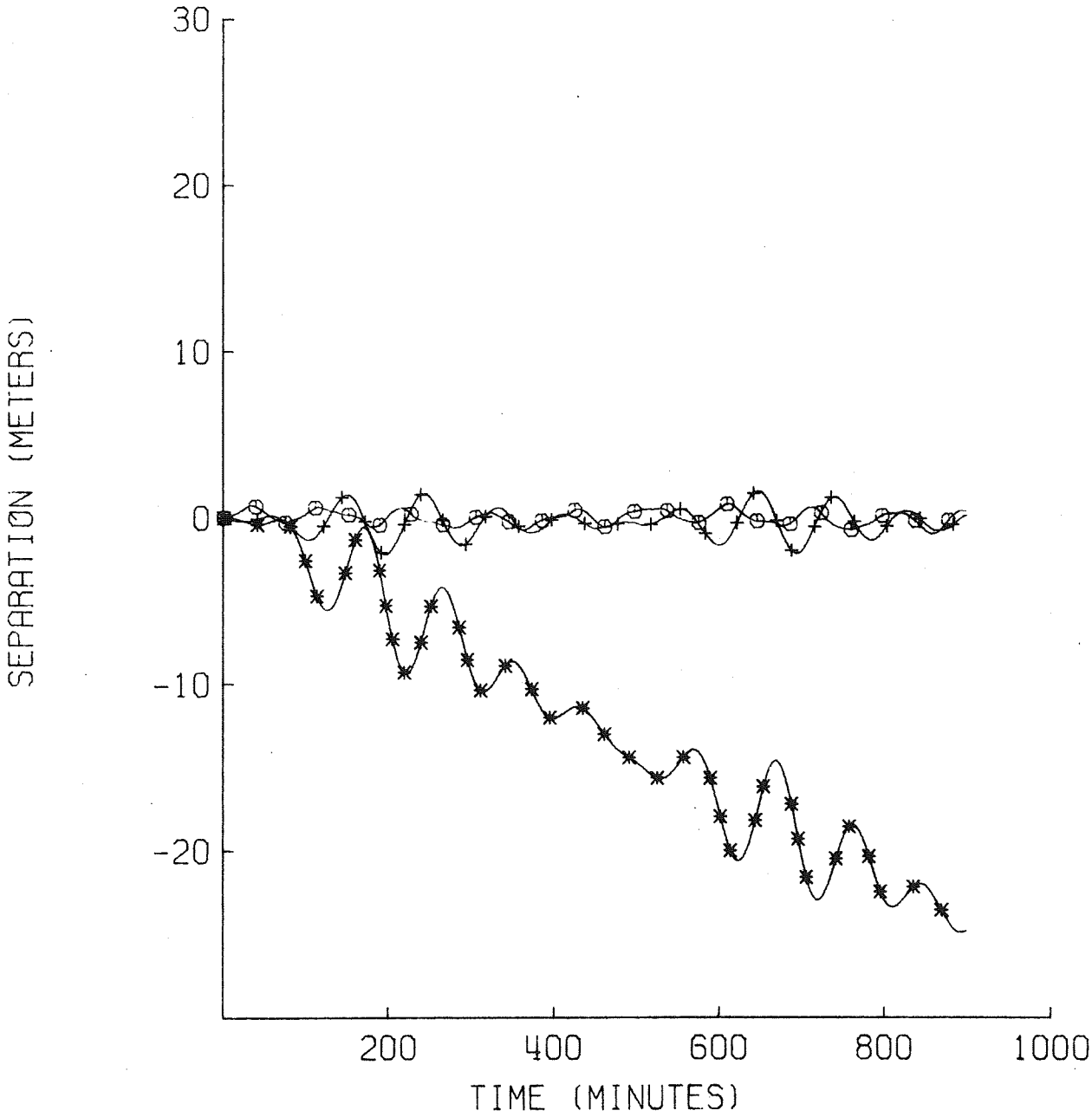
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊘) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(7 ,3) = -.0391
FACTØR USED IS 1.000000

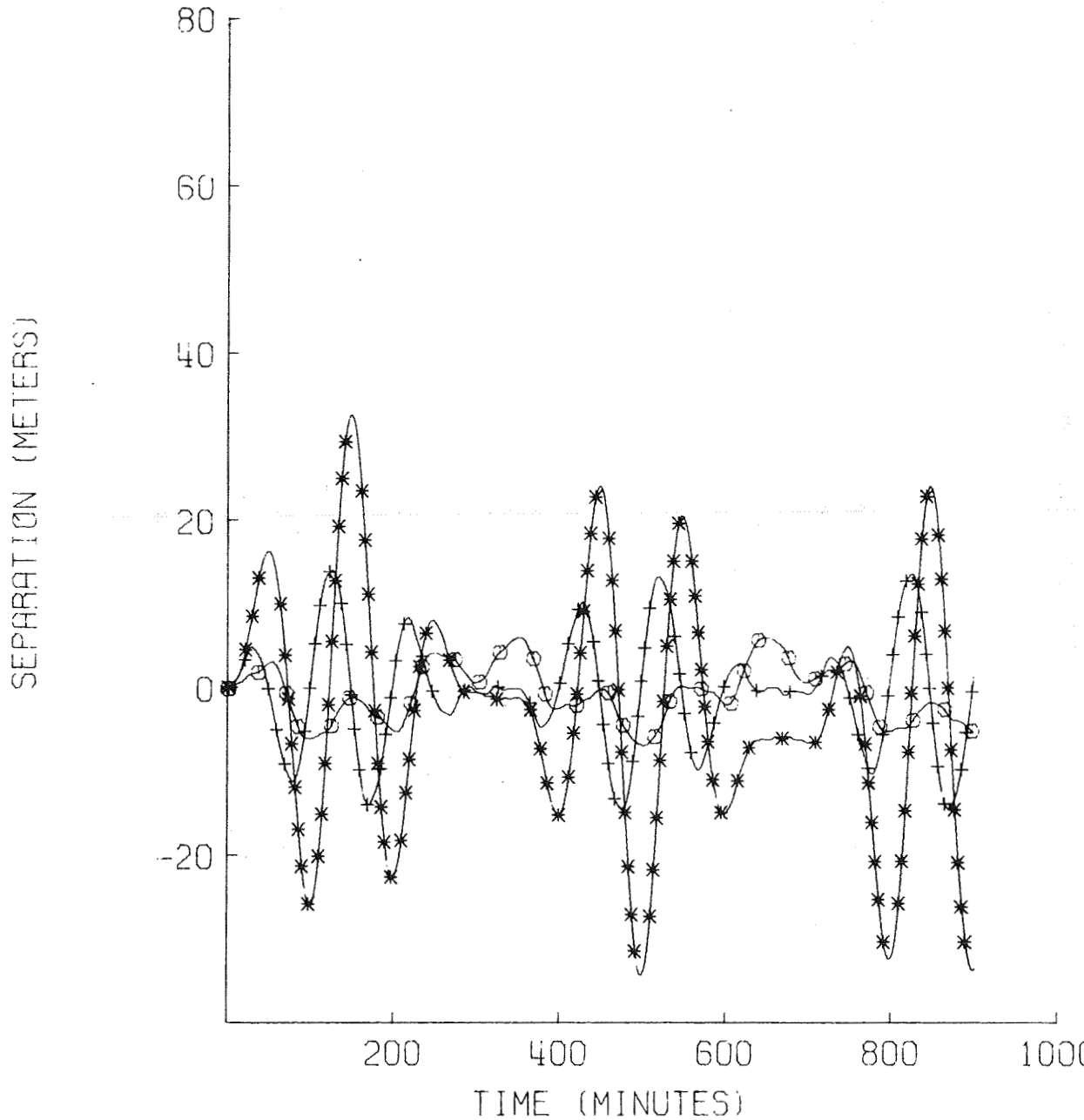
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7130.6535

RUN FOR C(7 ,4) = -.2898
FACTOR USED IS 1.000000

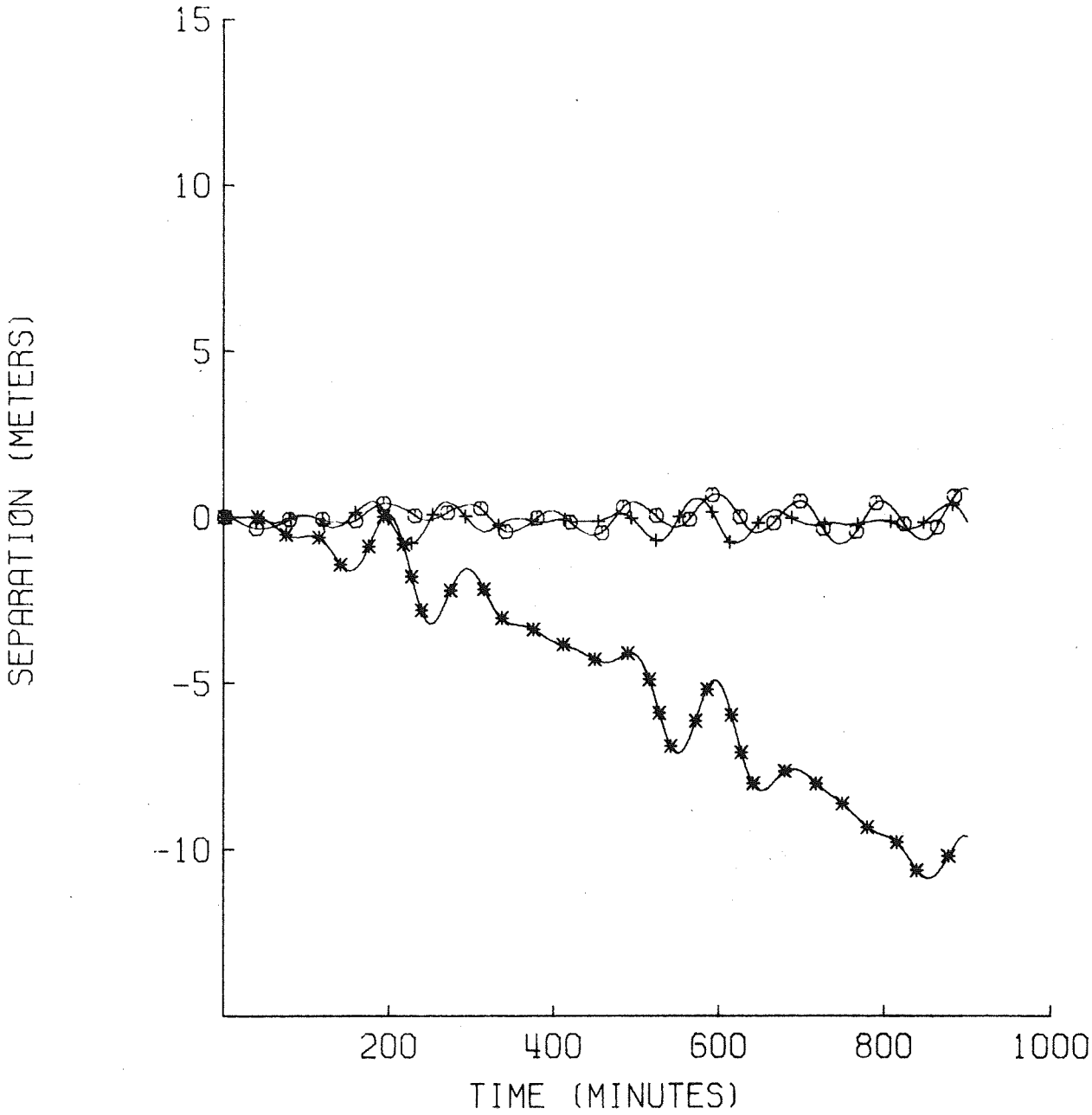
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊕) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(7 ,4) = -.0145
FACTØR USED IS 1.000000

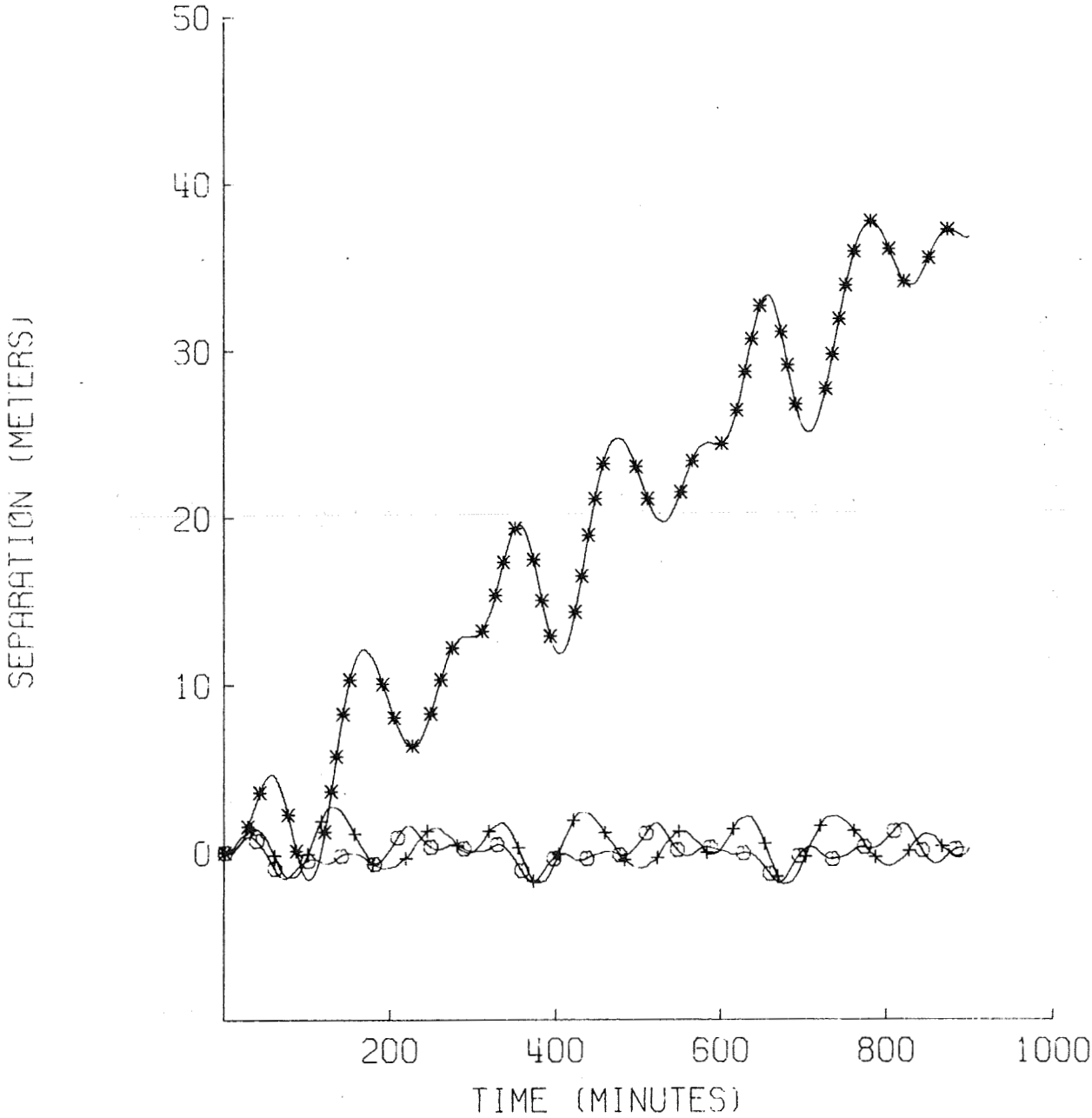
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊘) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(7 ,5) = .0612
FACTØR USED IS 1.000000

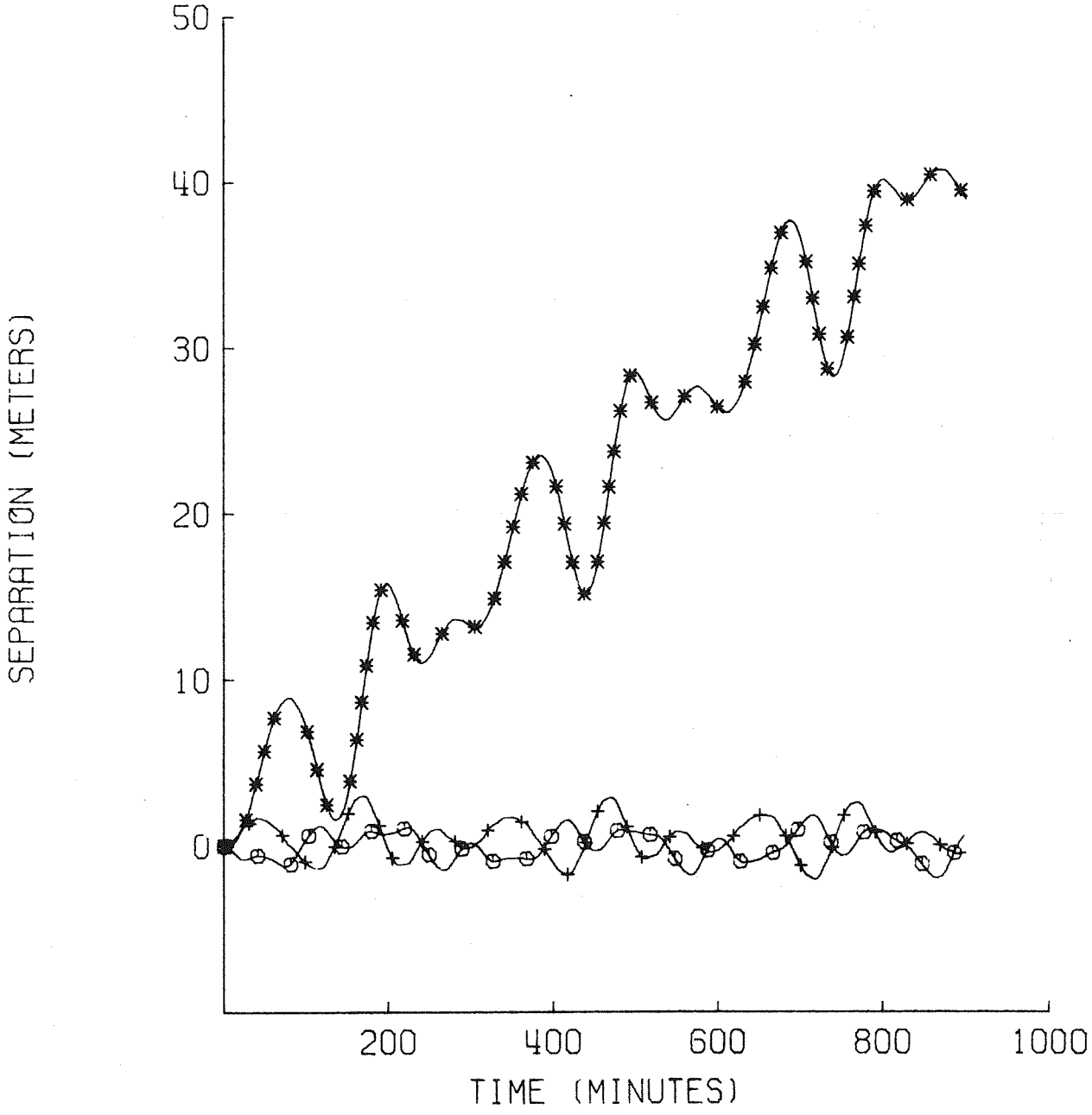
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊕) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(7 ,5) = .0634
FACTØR USED IS 1.000000

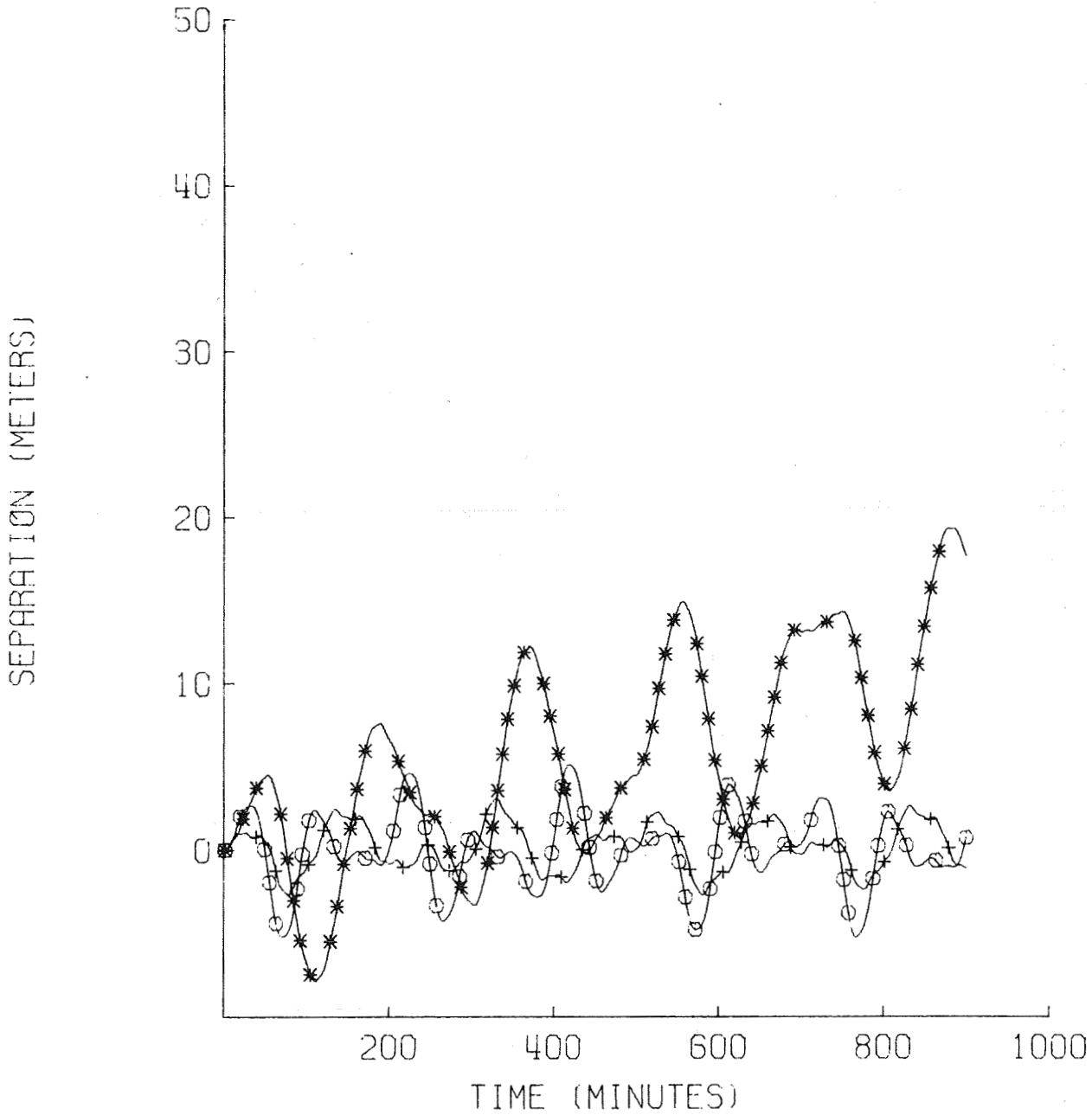
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(7 ,6) = -.1685
FACTOR USED IS 1.000000

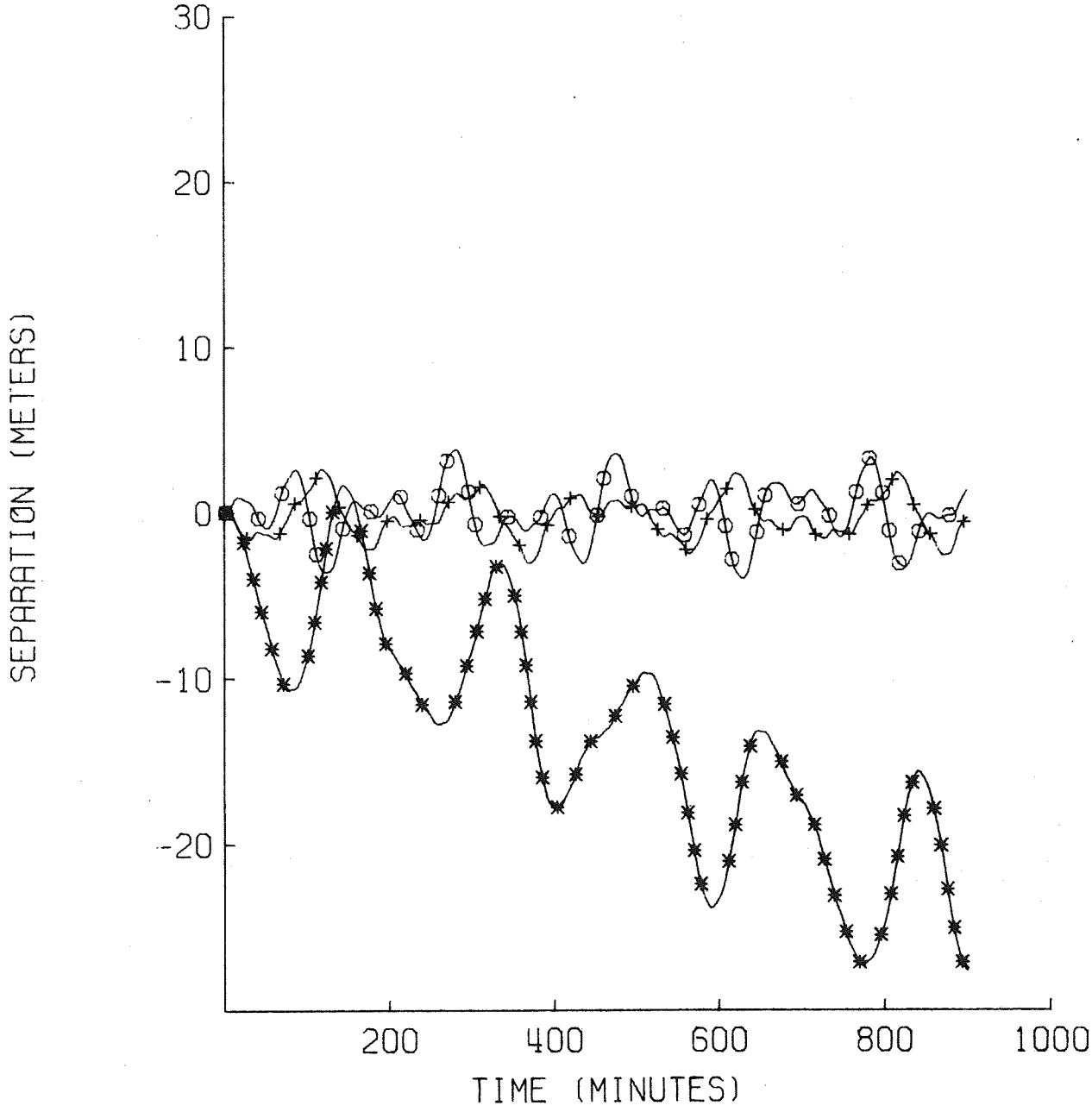
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(7 ,6) = .1512
FACTØR USED IS 1.000000

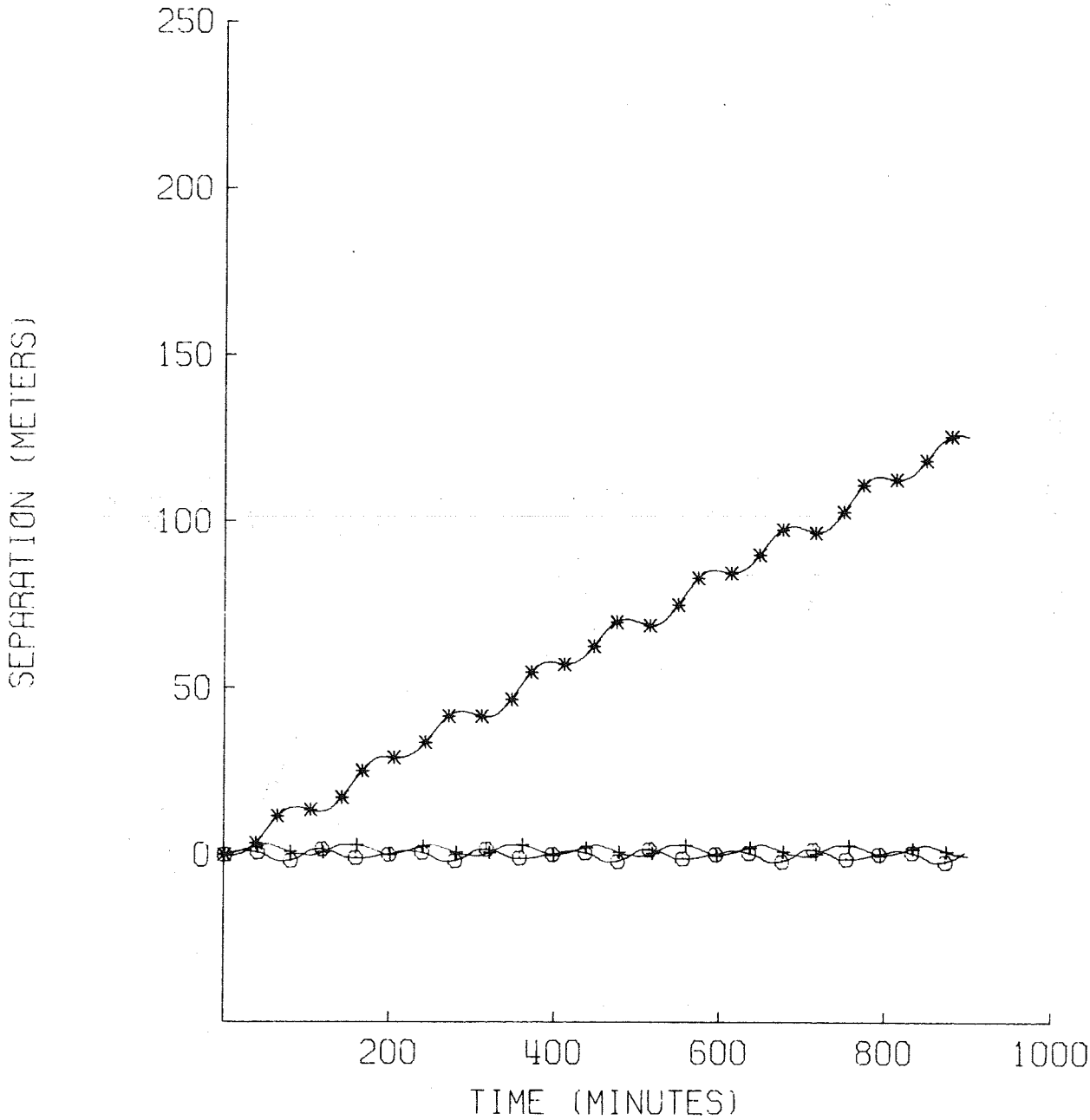
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⦶) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(7 ,7) = .0897
FACTOR USED IS 1.000000

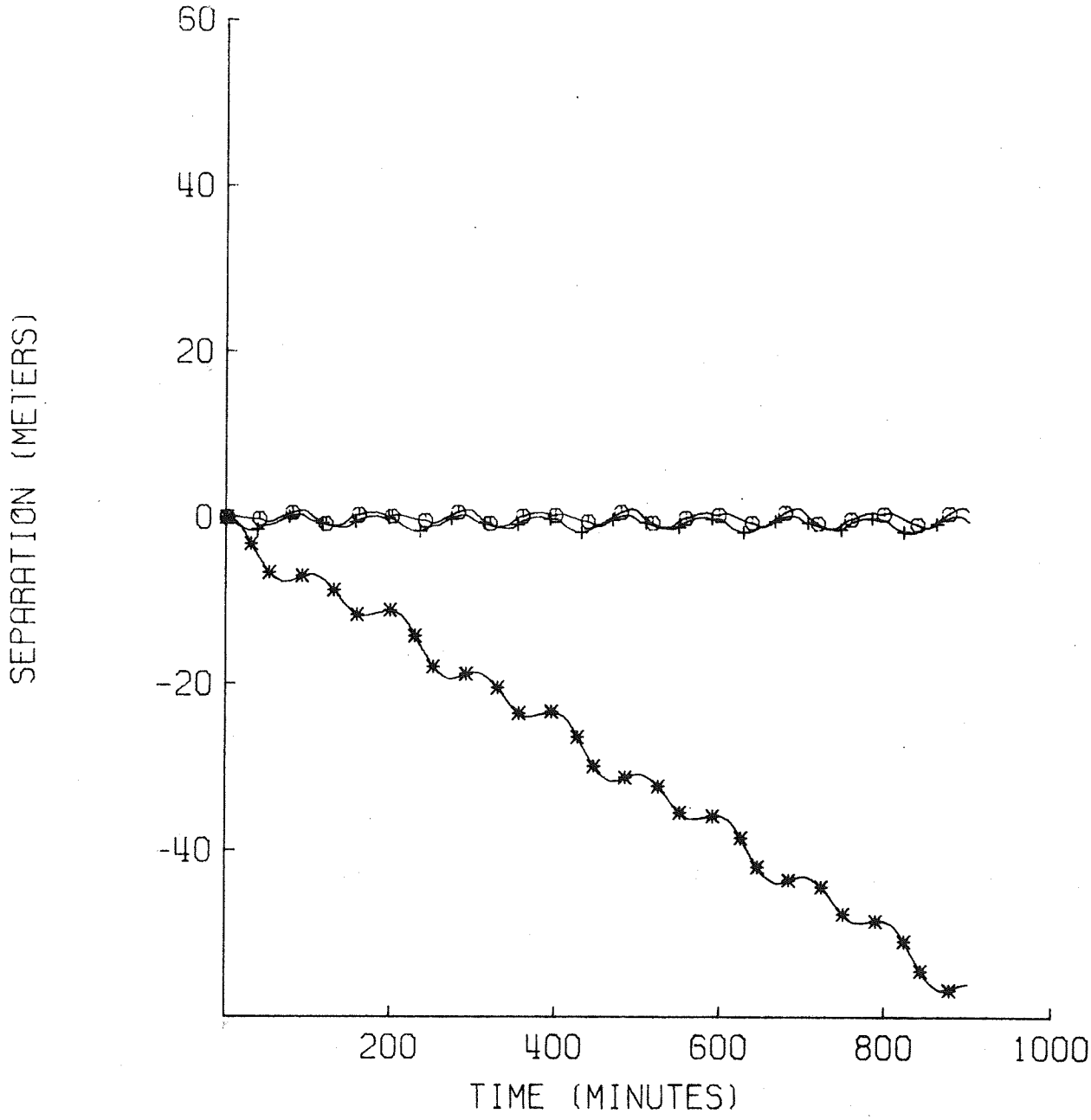
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊕) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(7 ,7) = -.0672
FACTØR USED IS 1.000000

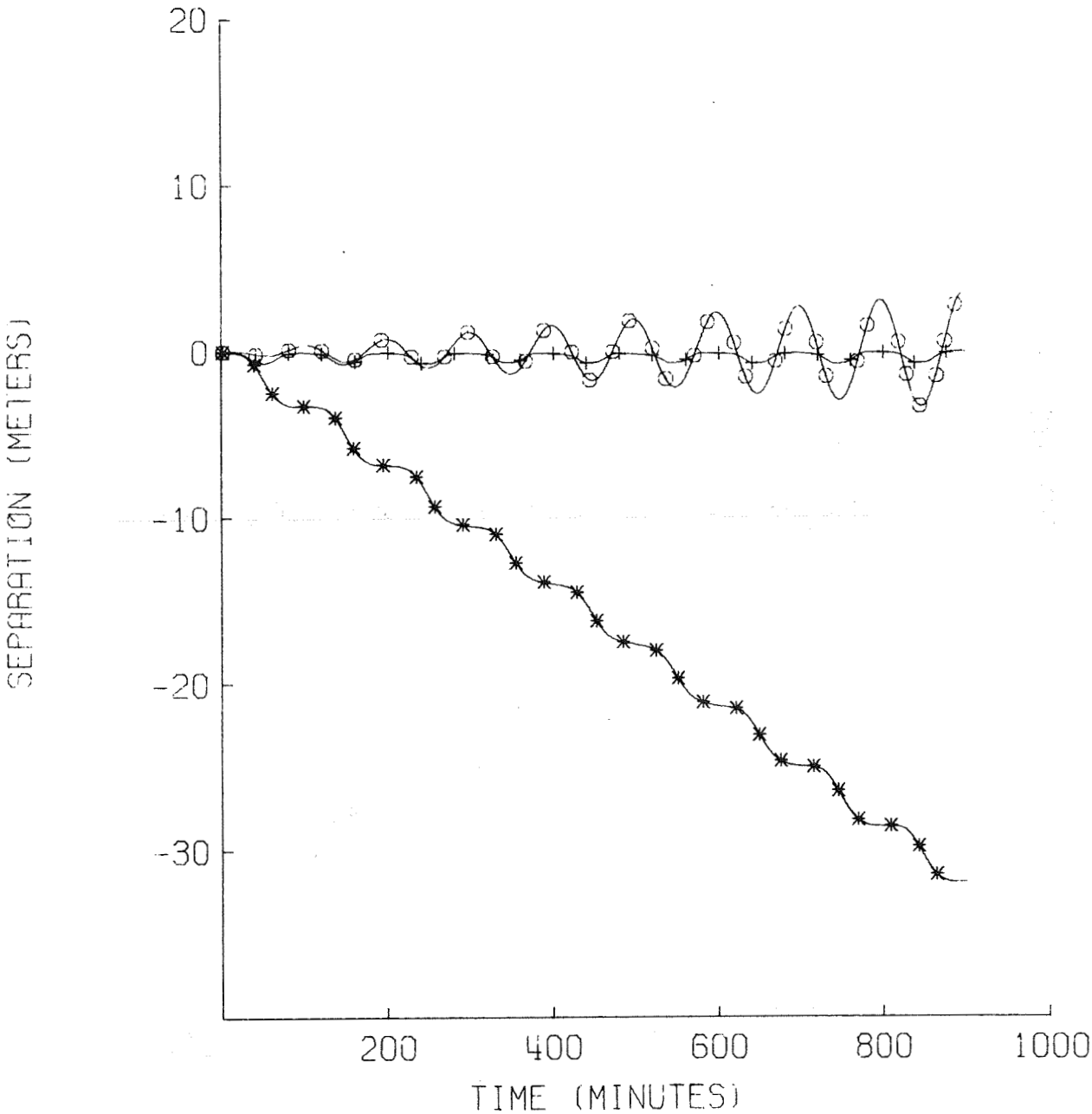
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⦶) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7130.6535

RUN FØR C(8 ,0) = -.0195
FACTØR USED IS 1.000000

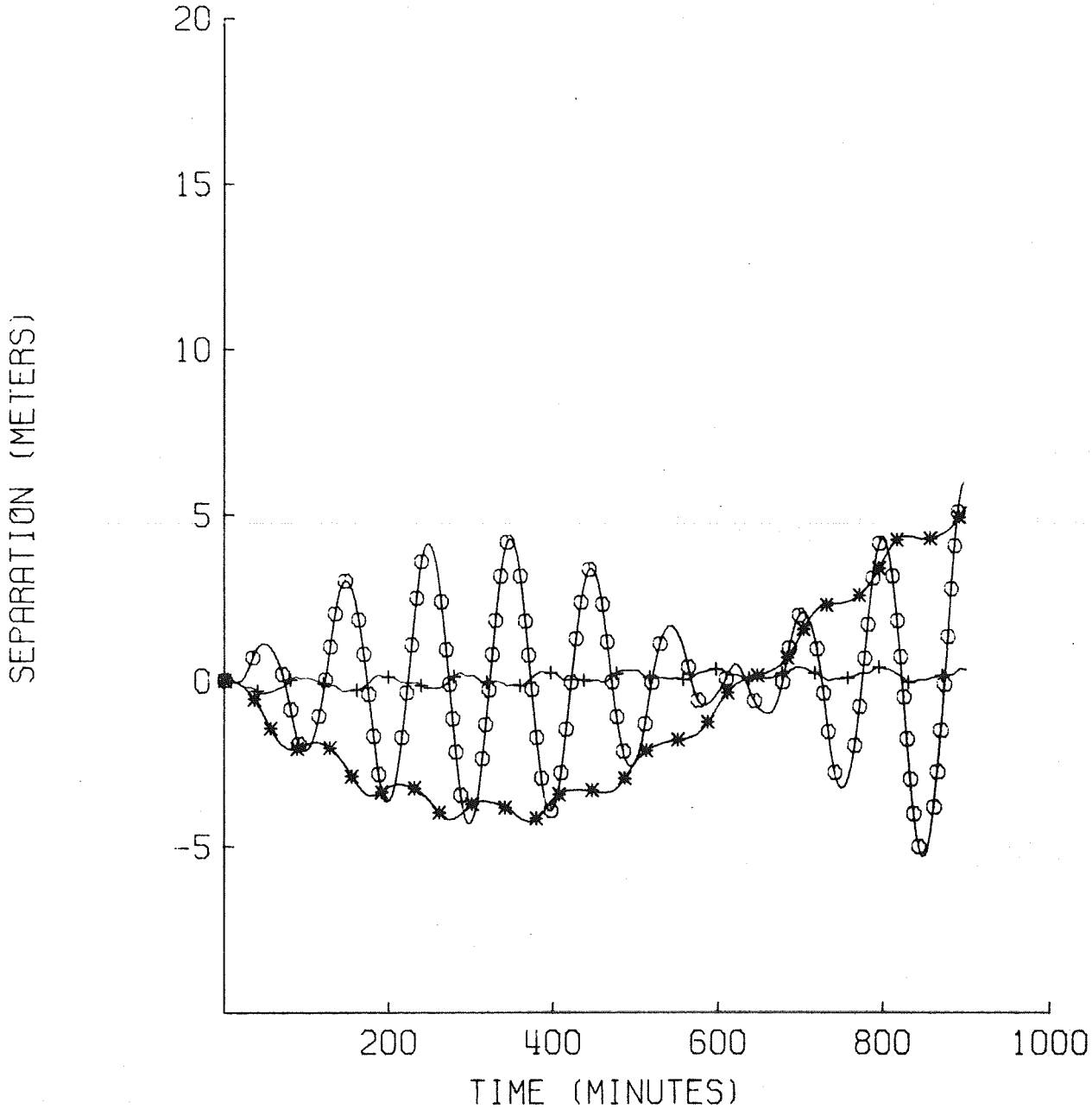
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⦶) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(8 ,1) = -.0738
FACTØR USED IS 1.000000

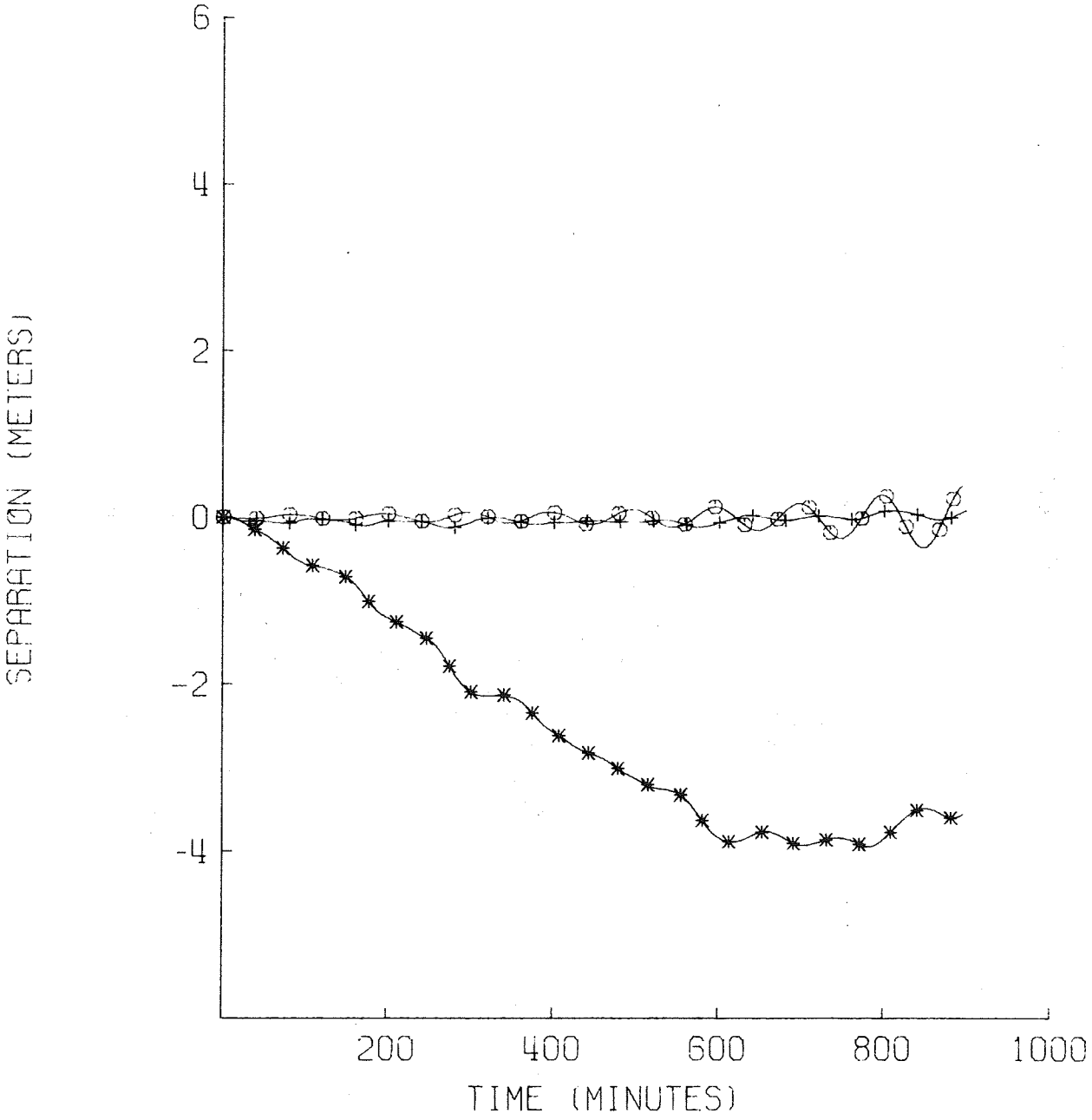
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⏀) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7139.6535

RUN FØR S(8 ,1) = .0017
FACTØR USED IS 1.000000

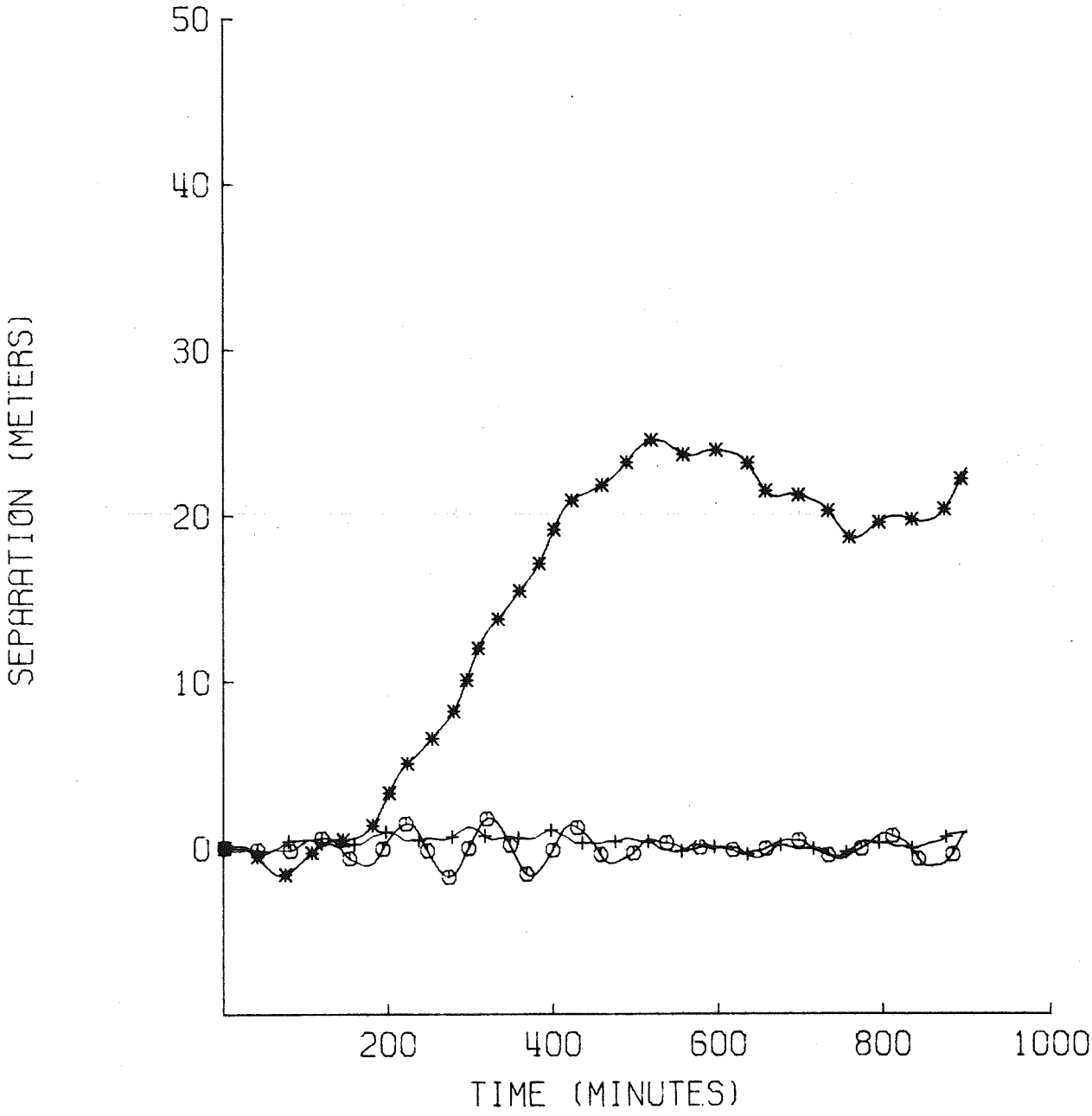
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⦶) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(8 ,2) = .0621
FACTØR USED IS 1.000000

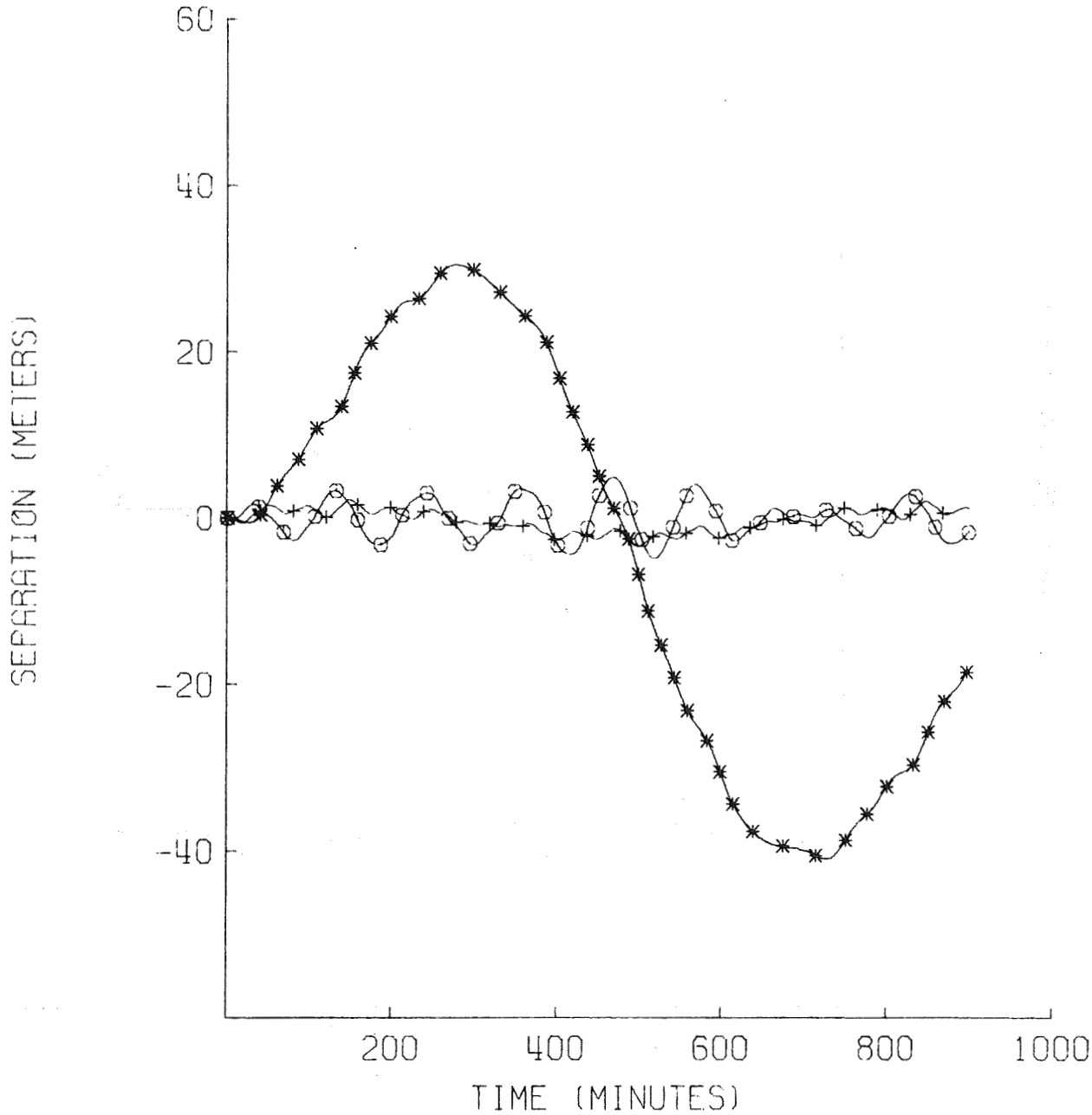
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(8 ,2) = .2220
FACTØR USED IS 1.000000

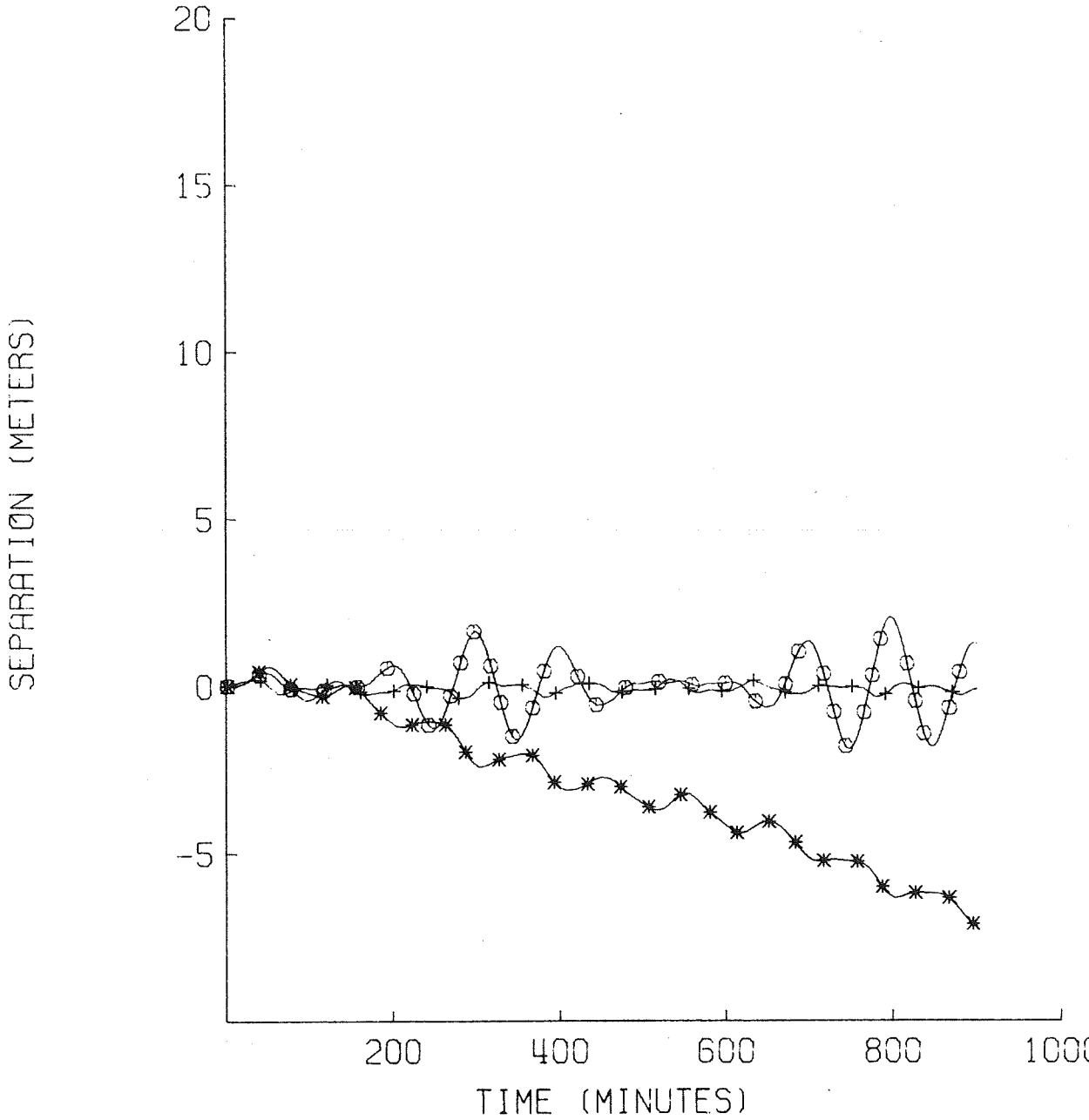
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊘) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(8 ,3) = .0262
FACTOR USED IS 1.000000

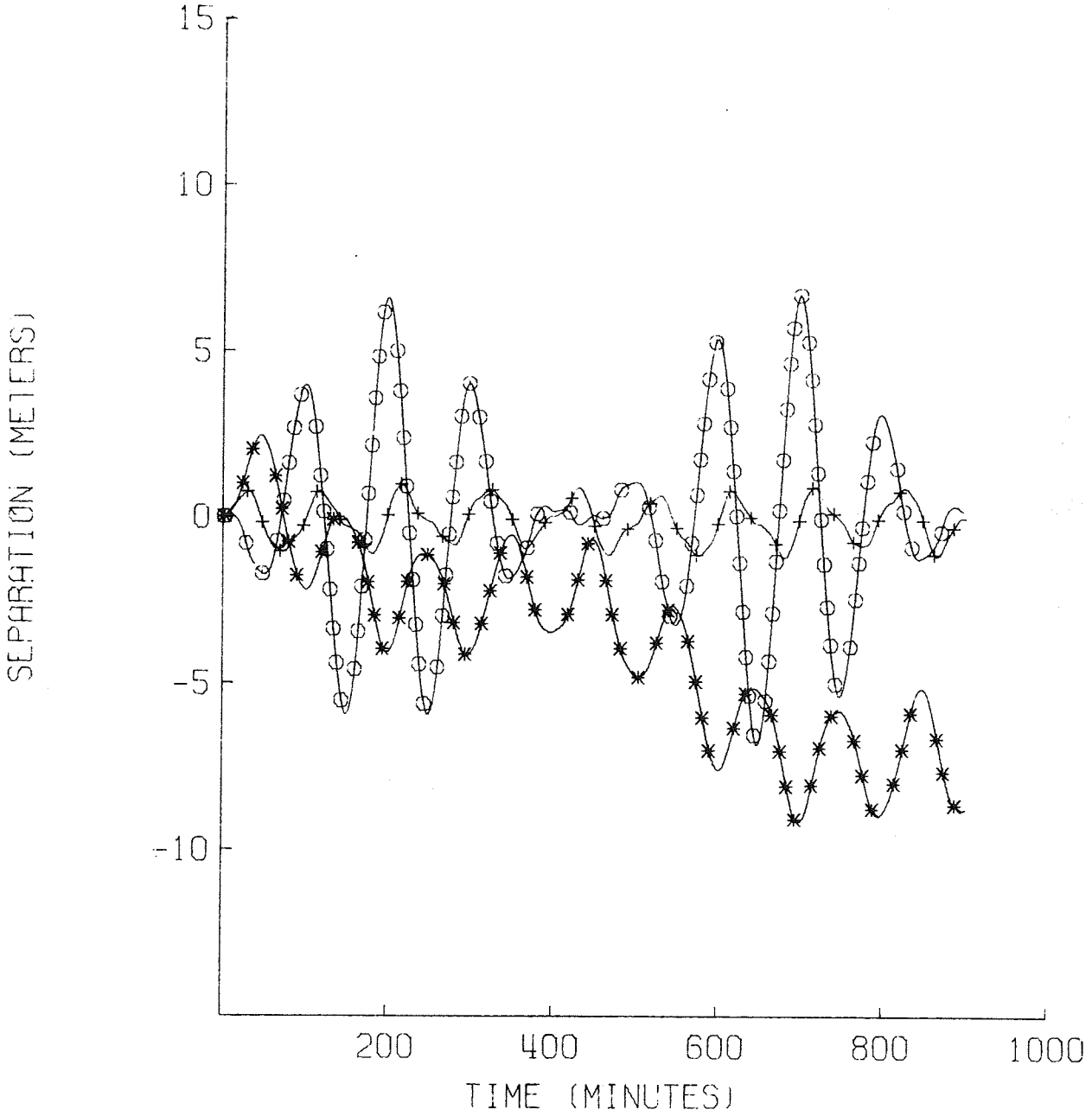
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊕) BI-NORMAL CROSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(8 ,3) = .0907
FACTOR USED IS 1.000000

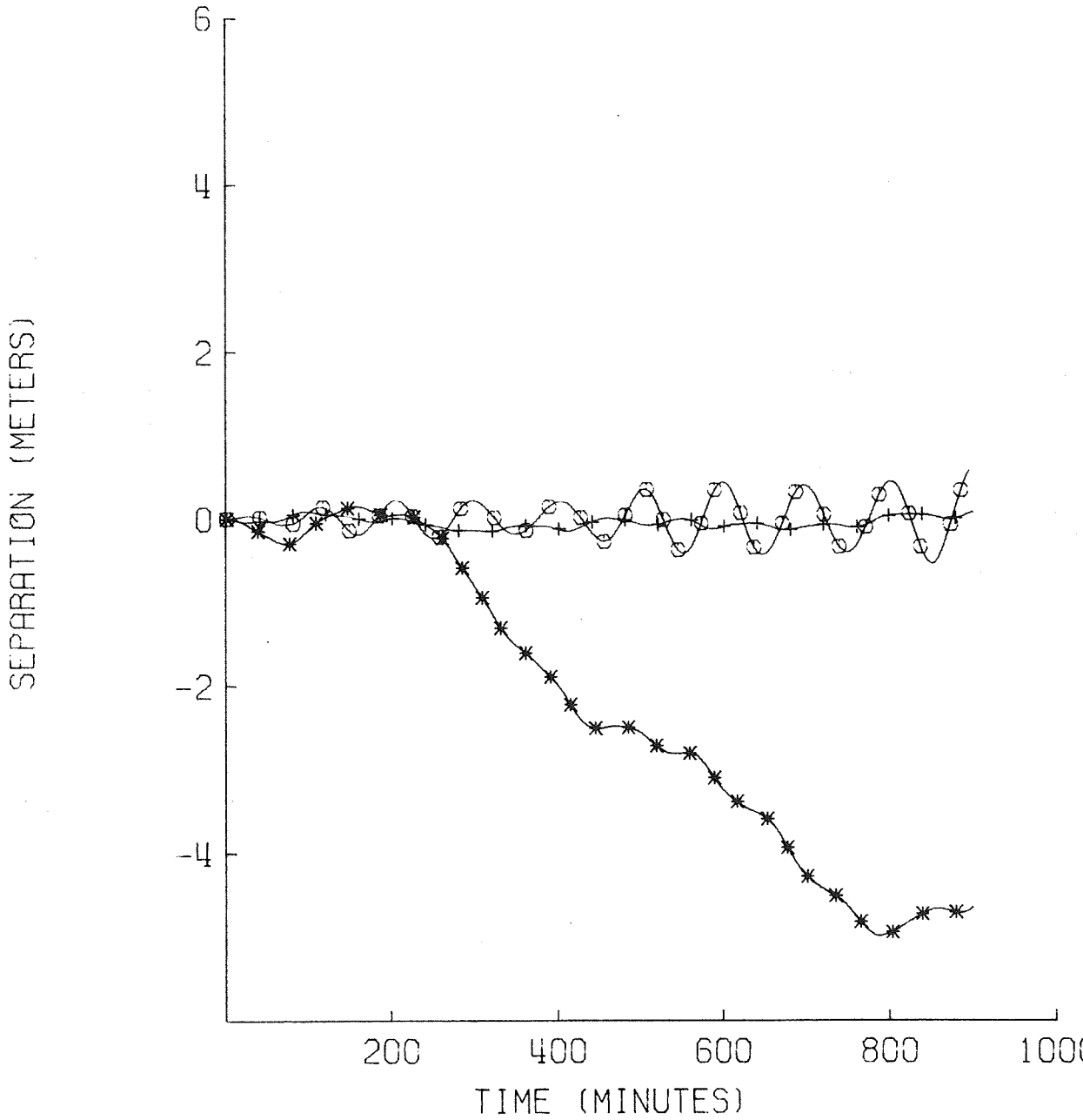
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(O) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(8 ,4) = -.0029
FACTØR USED IS 1.000000

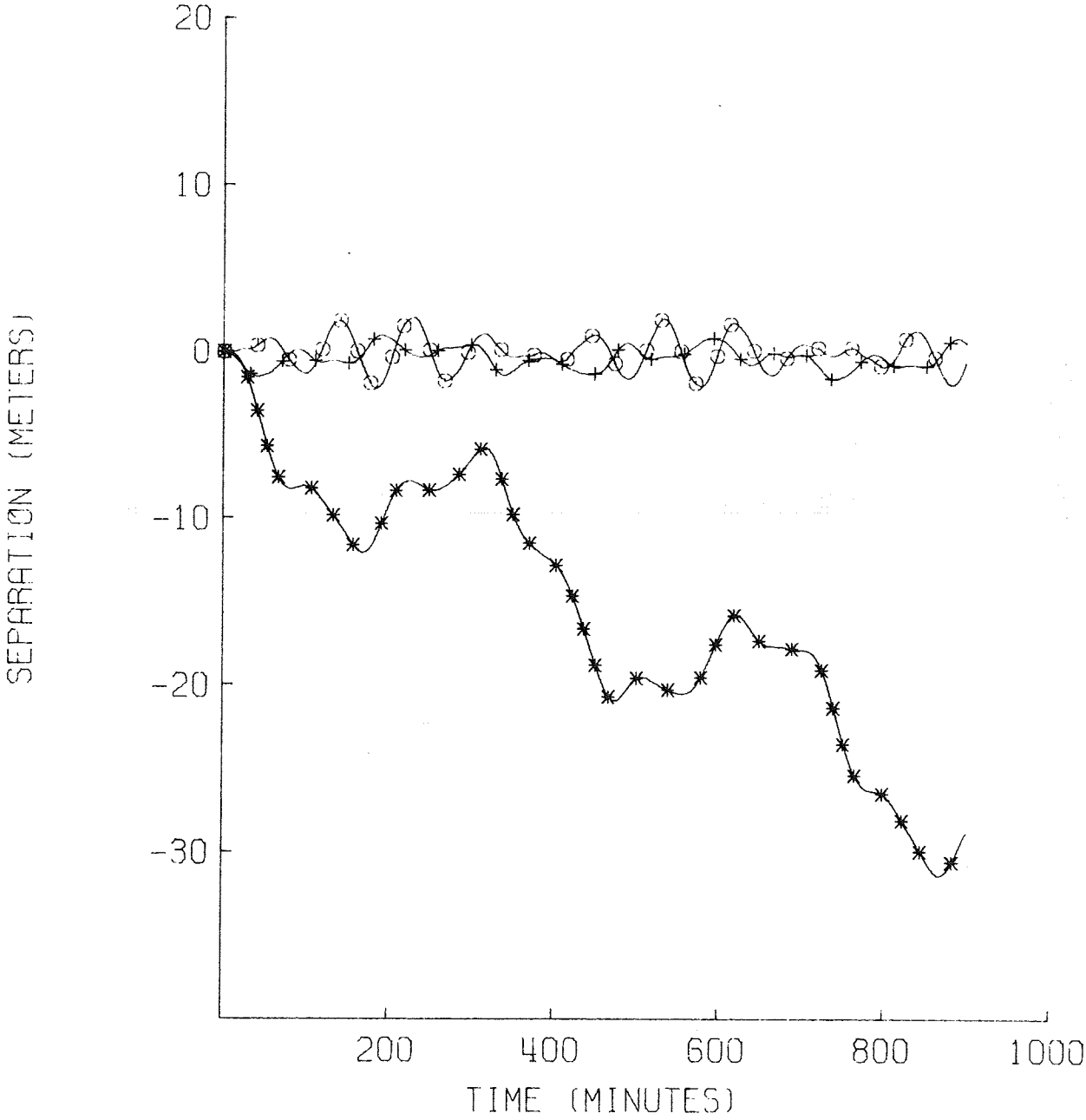
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⦶) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(8 ,4) = .0568
FACTOR USED IS 1.000000

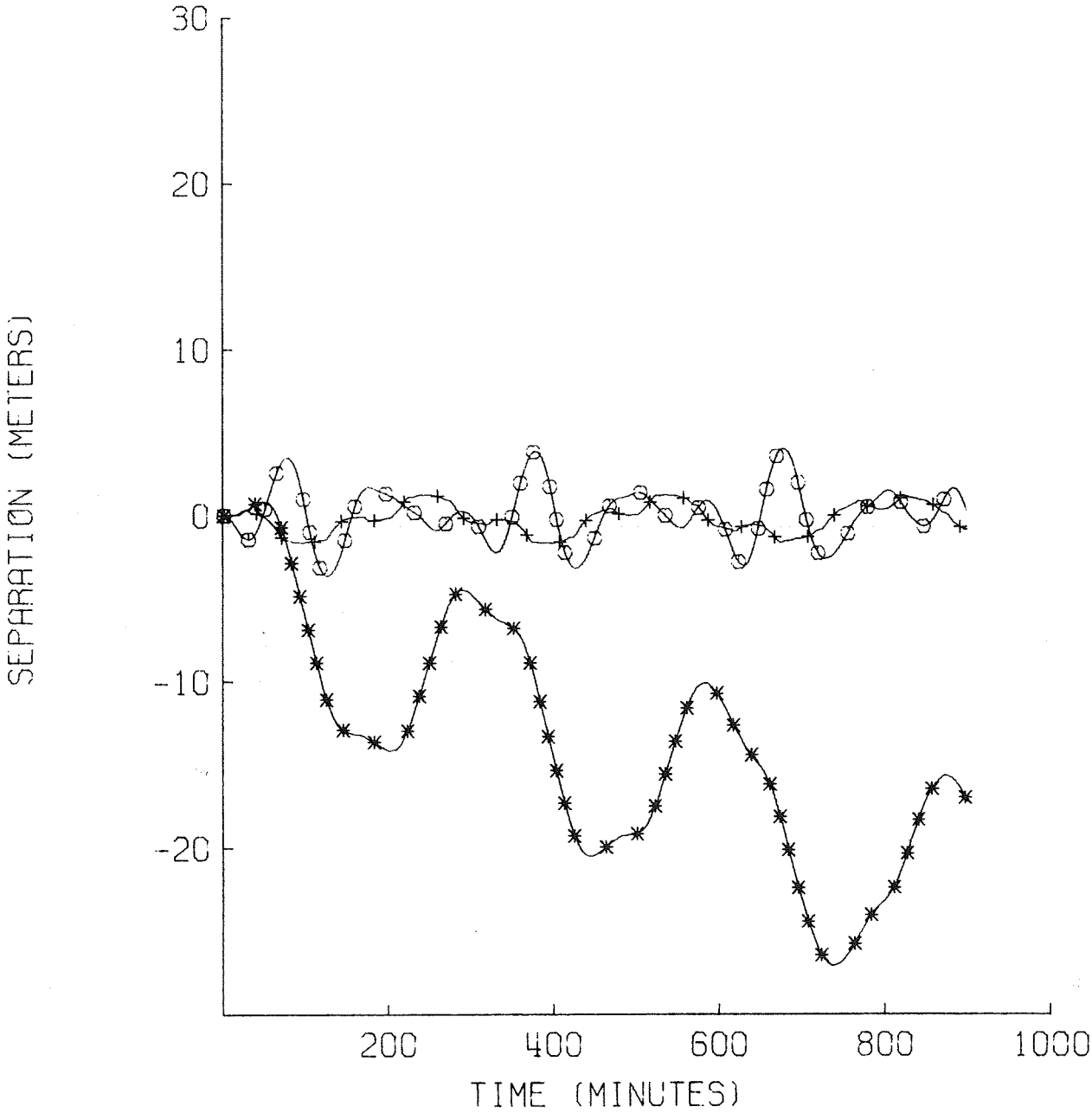
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(8 ,5) = -.0757
FACTØR USED IS 1.000000

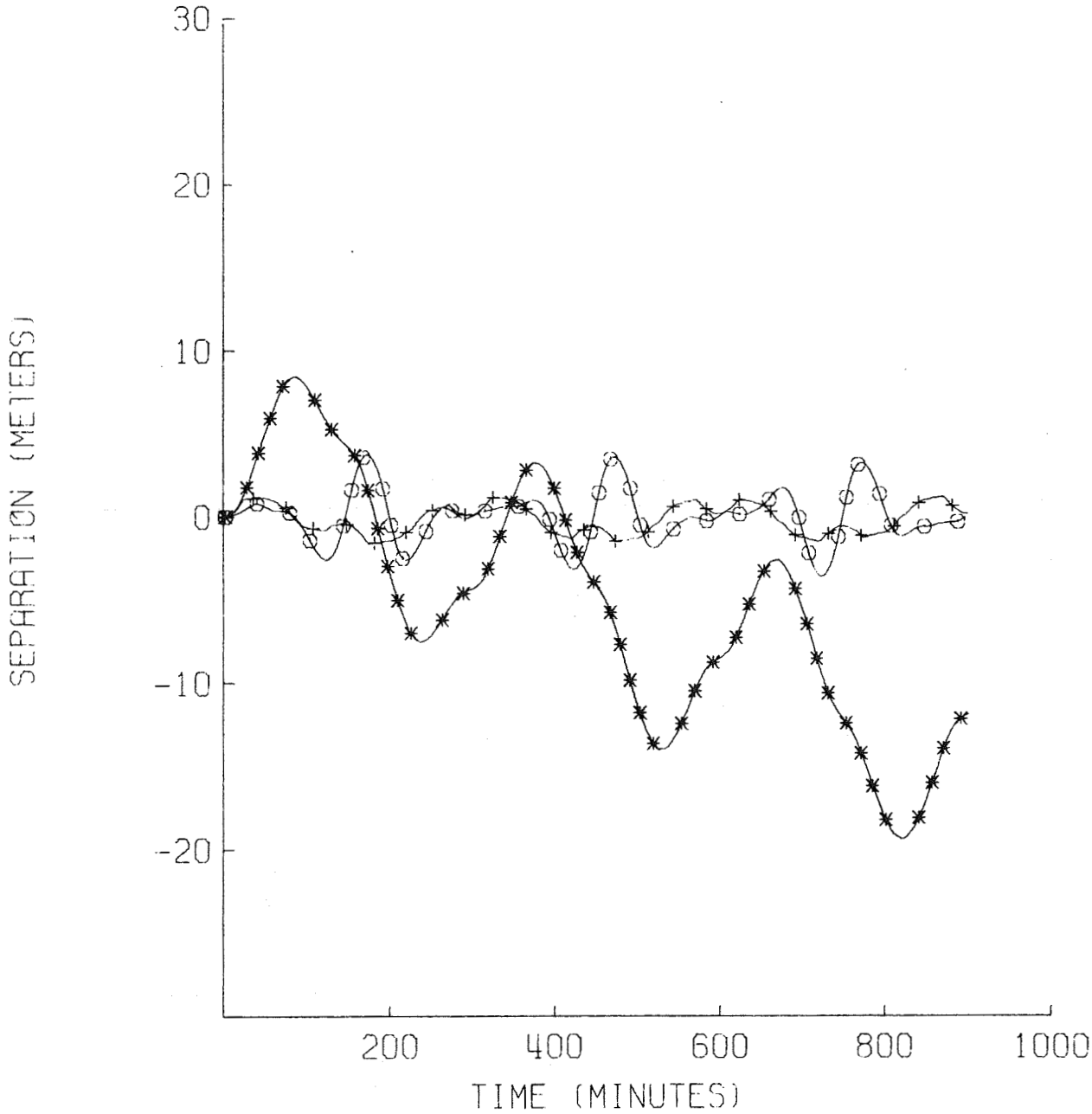
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⦶) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(8 ,5) = .0702
FACTOR USED IS 1.000000

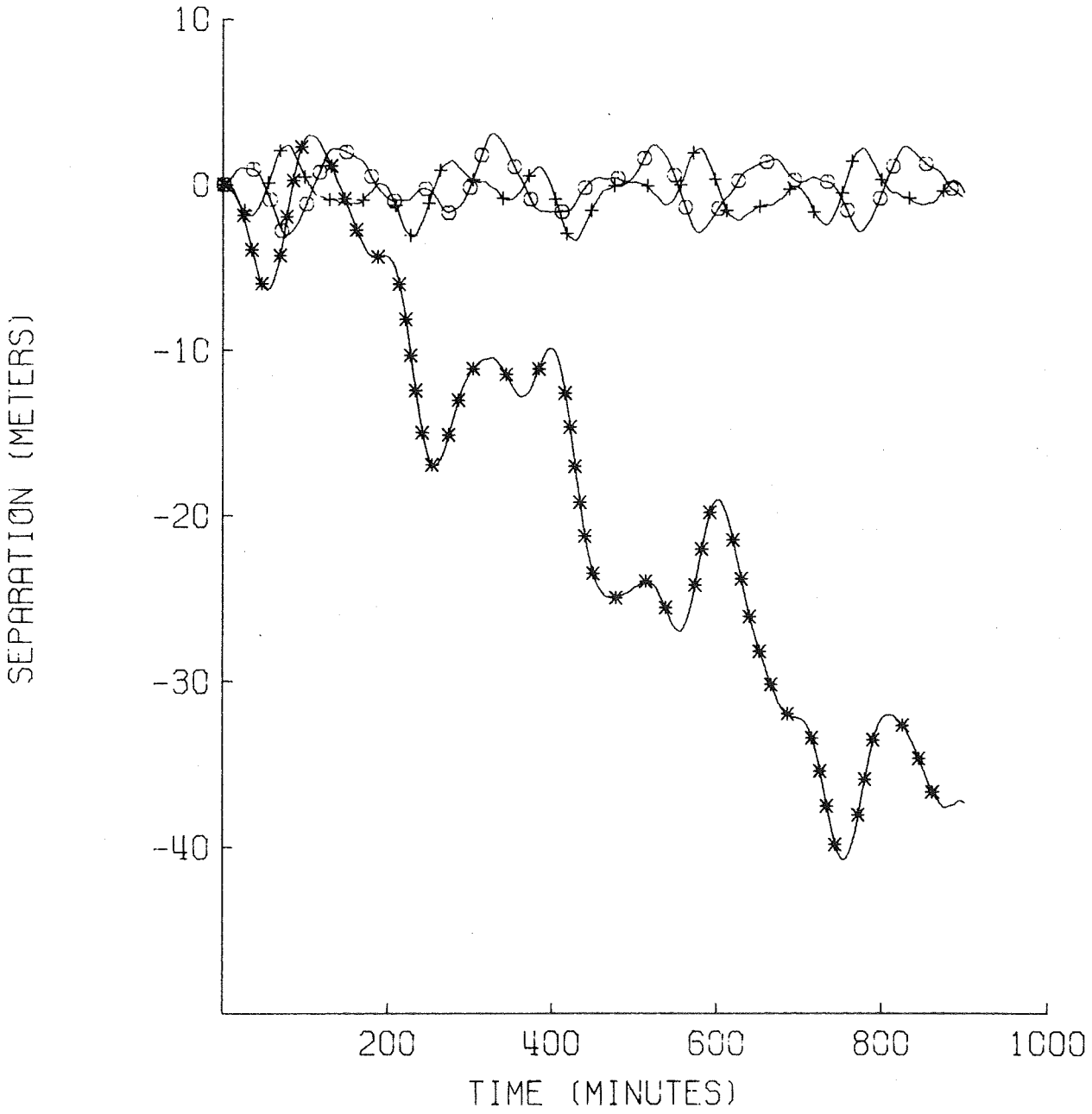
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊖) BI-NORMAL CROSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(8 ,6) = -.0859
FACTOR USED IS 1.000000

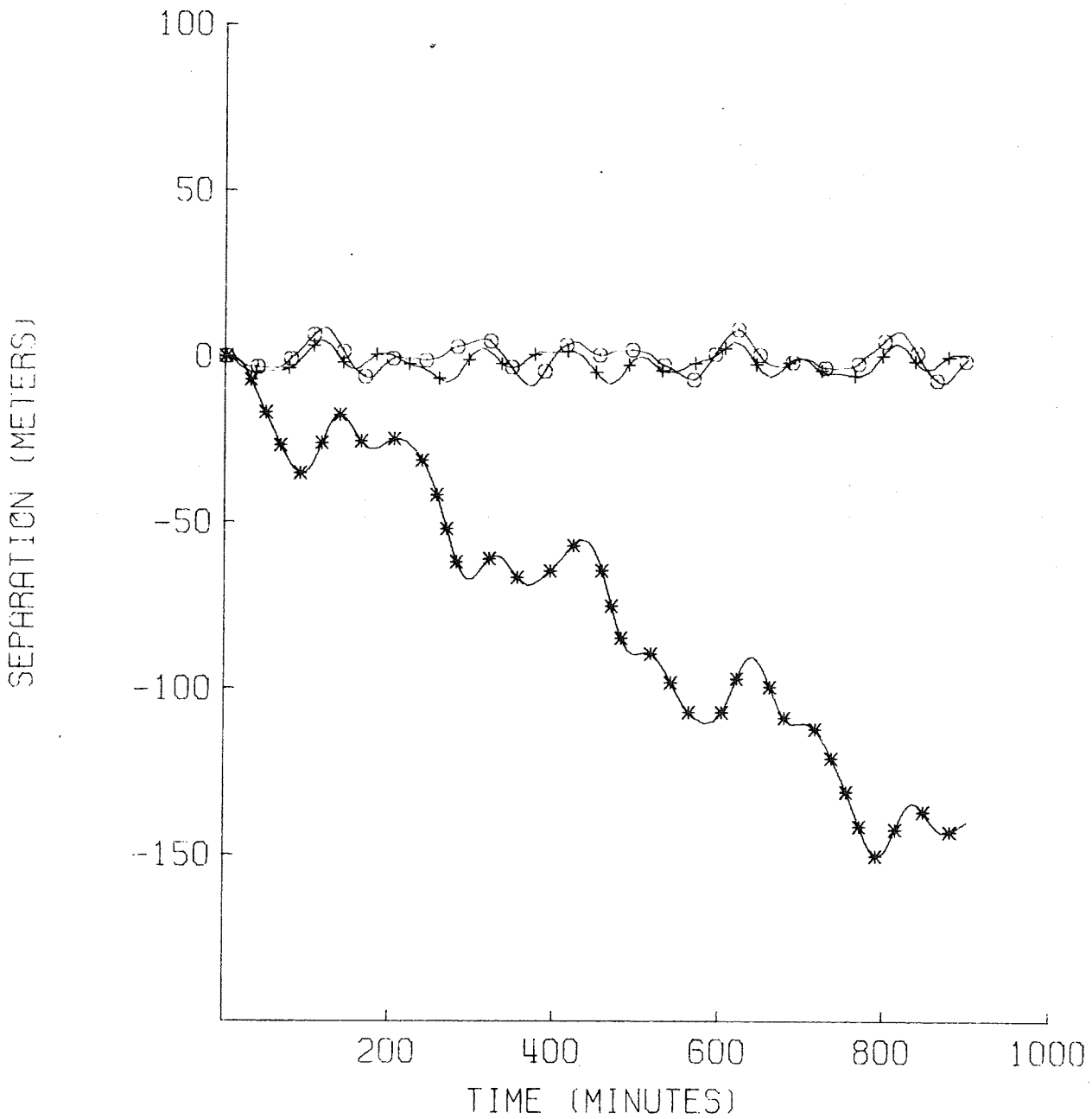
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(8 ,6) = .2170
FACTØR USED IS 1.000000

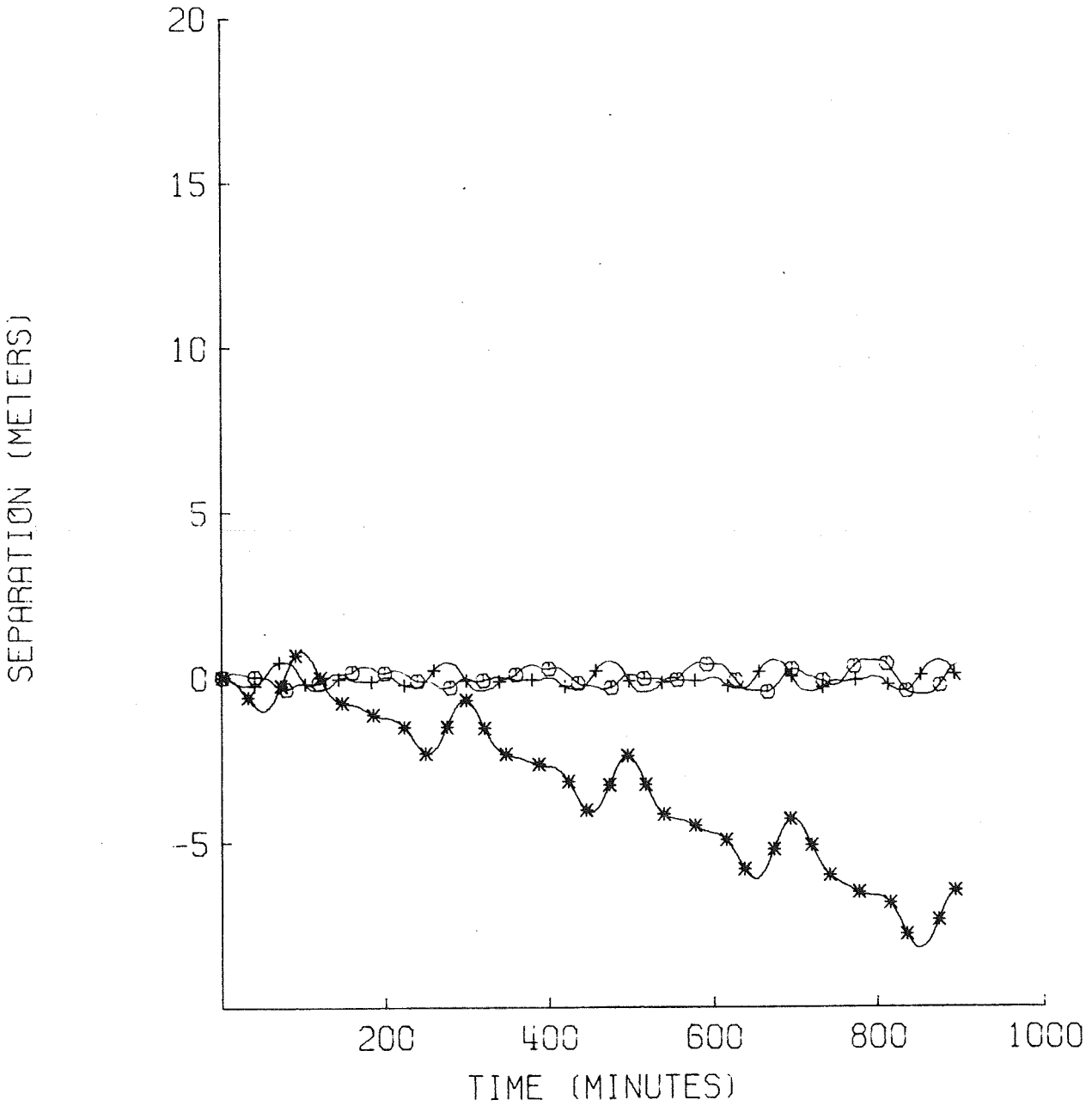
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(8 ,7) = .0246
FACTØR USED IS 1.000000

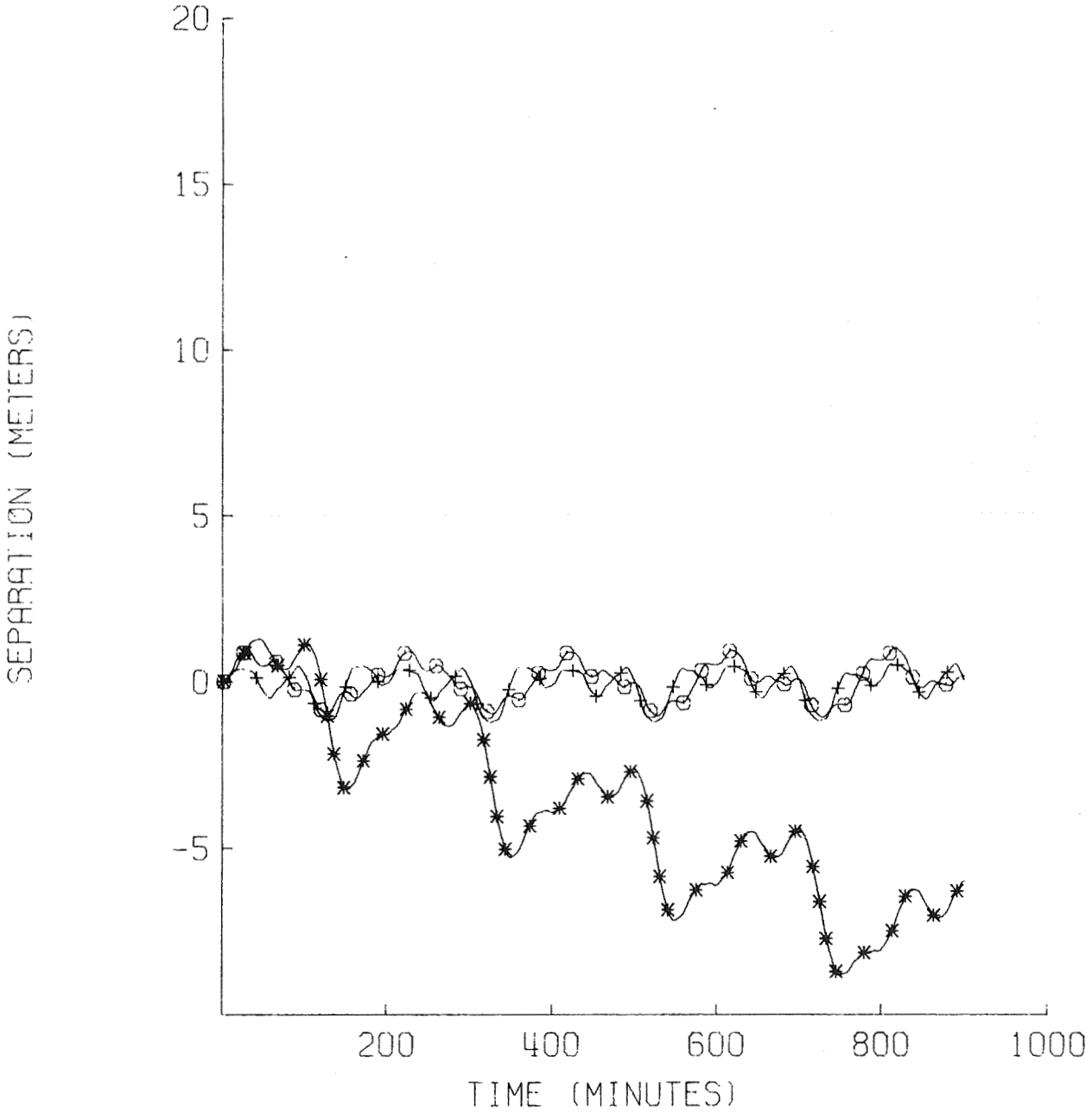
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(8 ,7) = .0668
FACTØR USED IS 1.000000

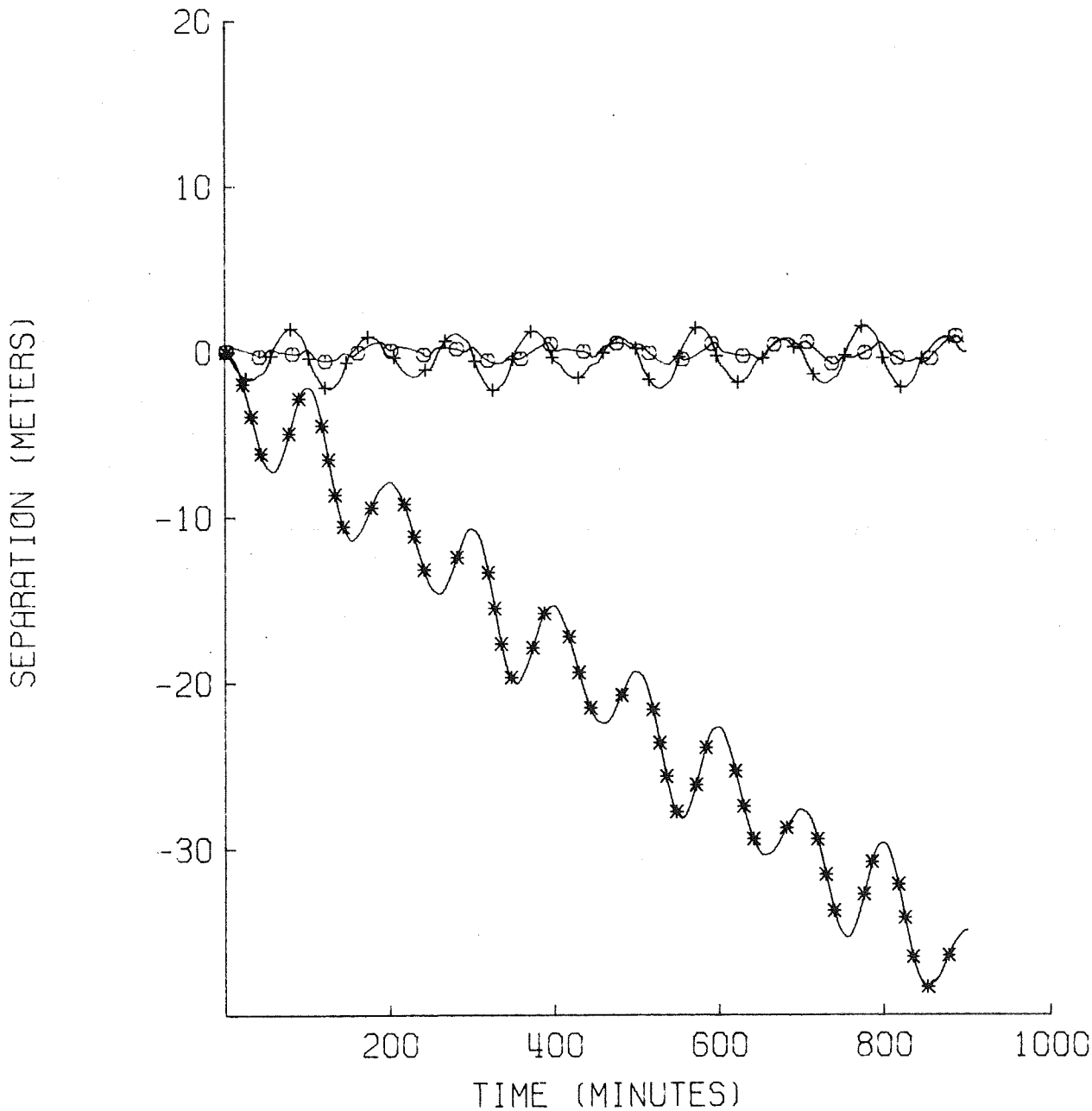
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS--TRACK
(⊖) BI-NØRMAL CRØSS--TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(8 ,8) = -.0948
FACTOR USED IS 1.000000

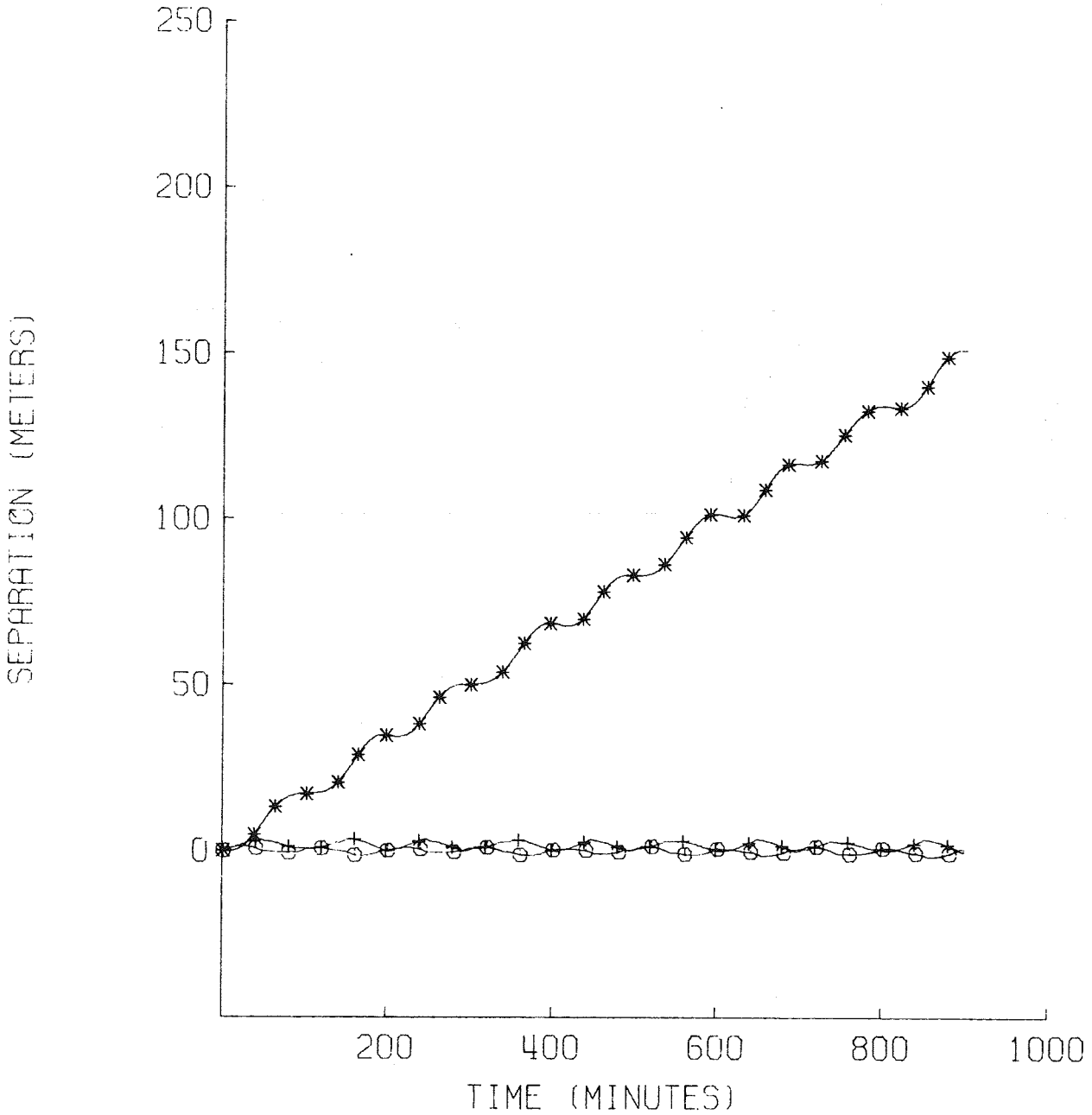
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊖) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(8 ,8) = -.1090
FACTØR USED IS 1.000000

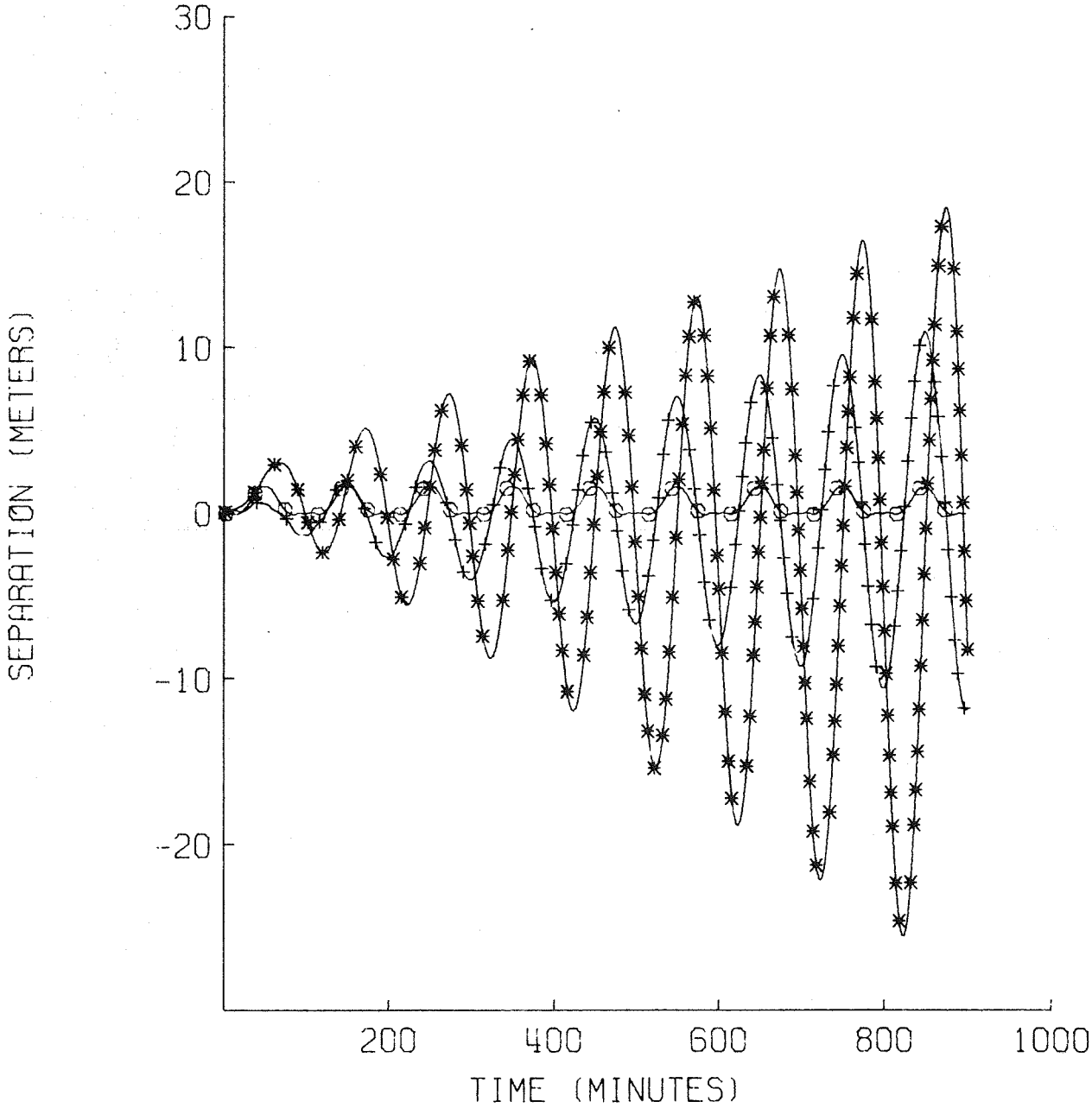
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊕) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(9 ,0) = .0689
FACTØR USED IS 1.000000

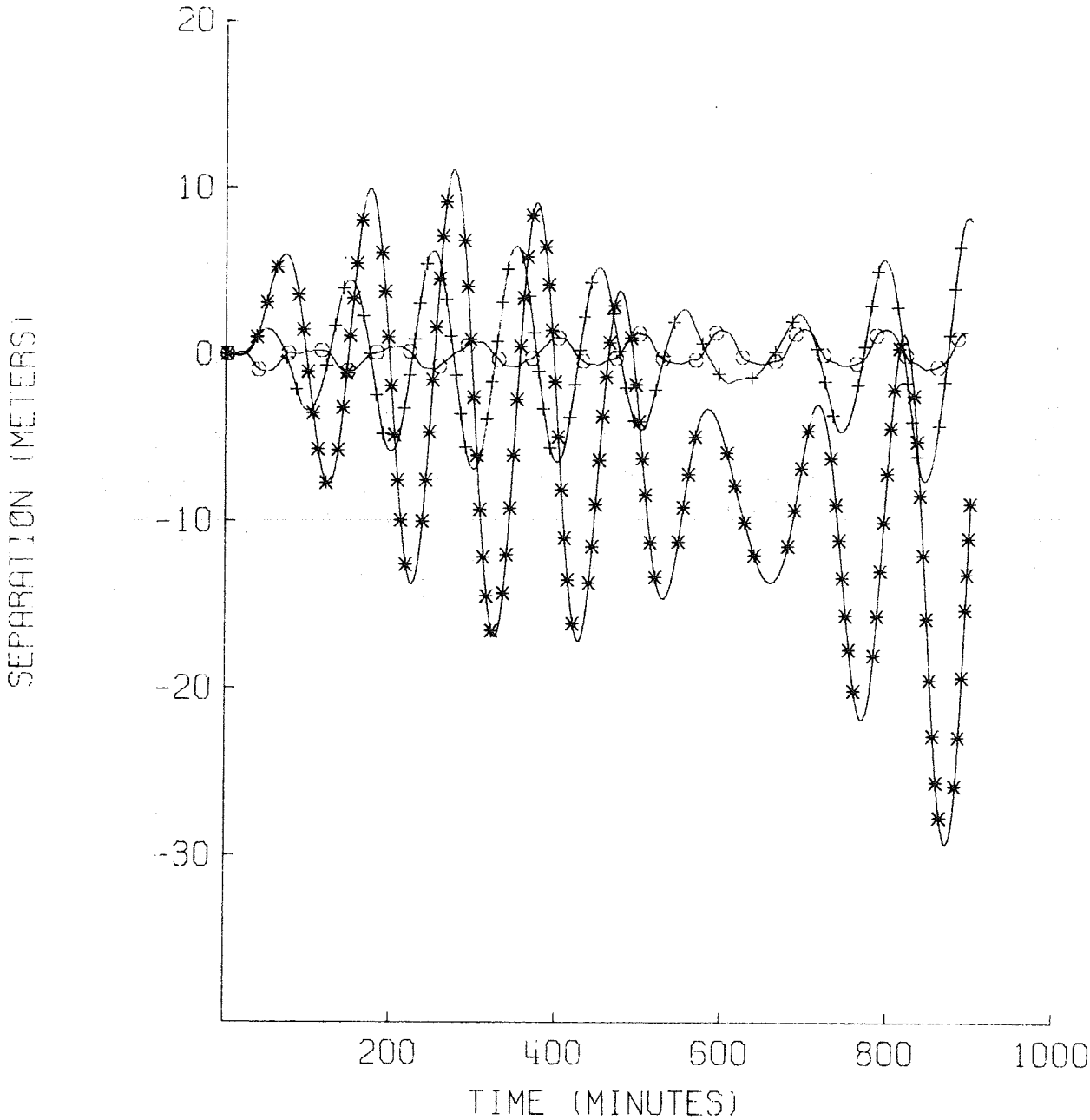
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⏀) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(9 ,1) = .1598
FACTØR USED IS 1.000000

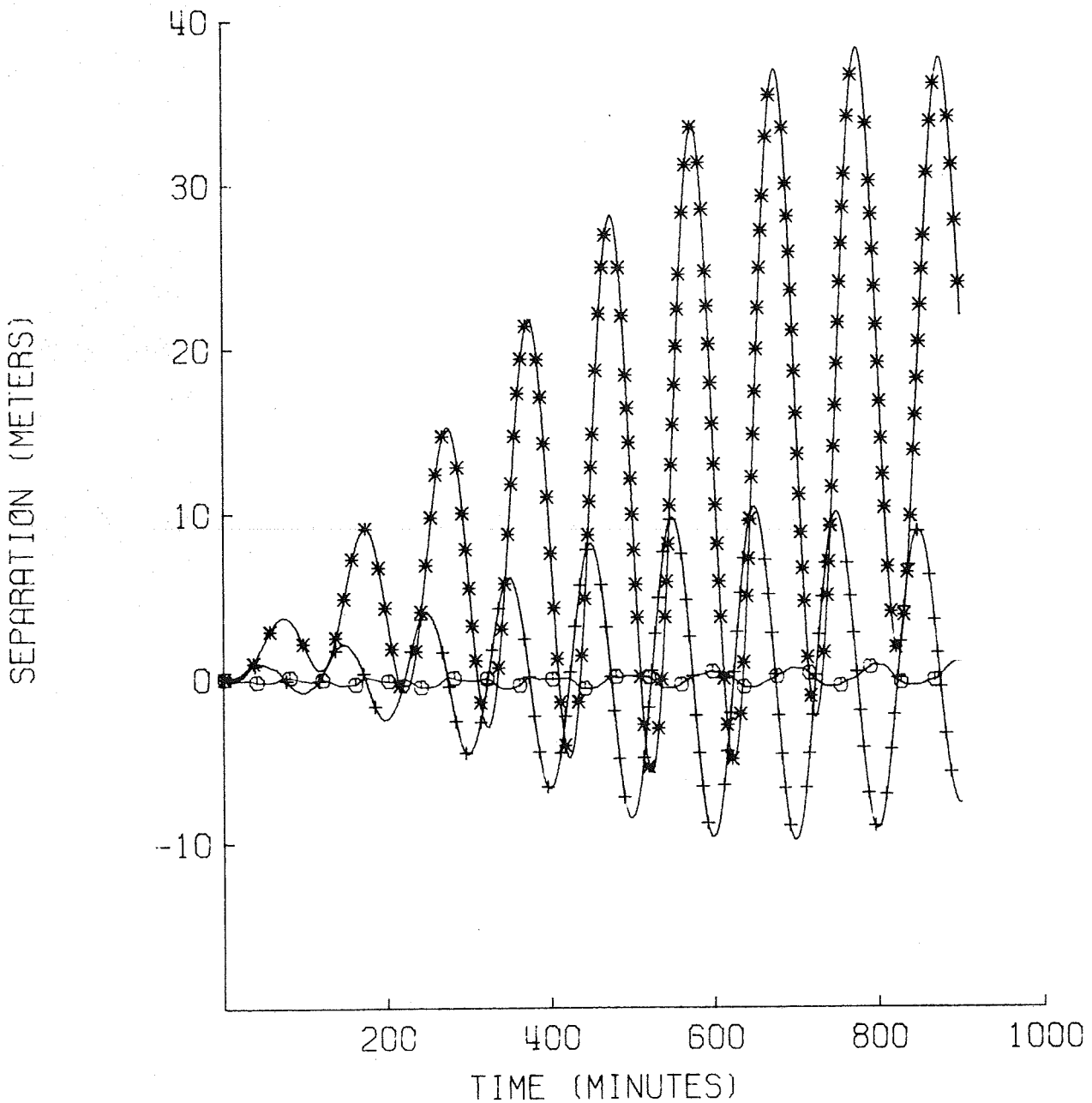
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⦶) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(9 ,1) = -.0966
FACTØR USED IS 1.000000

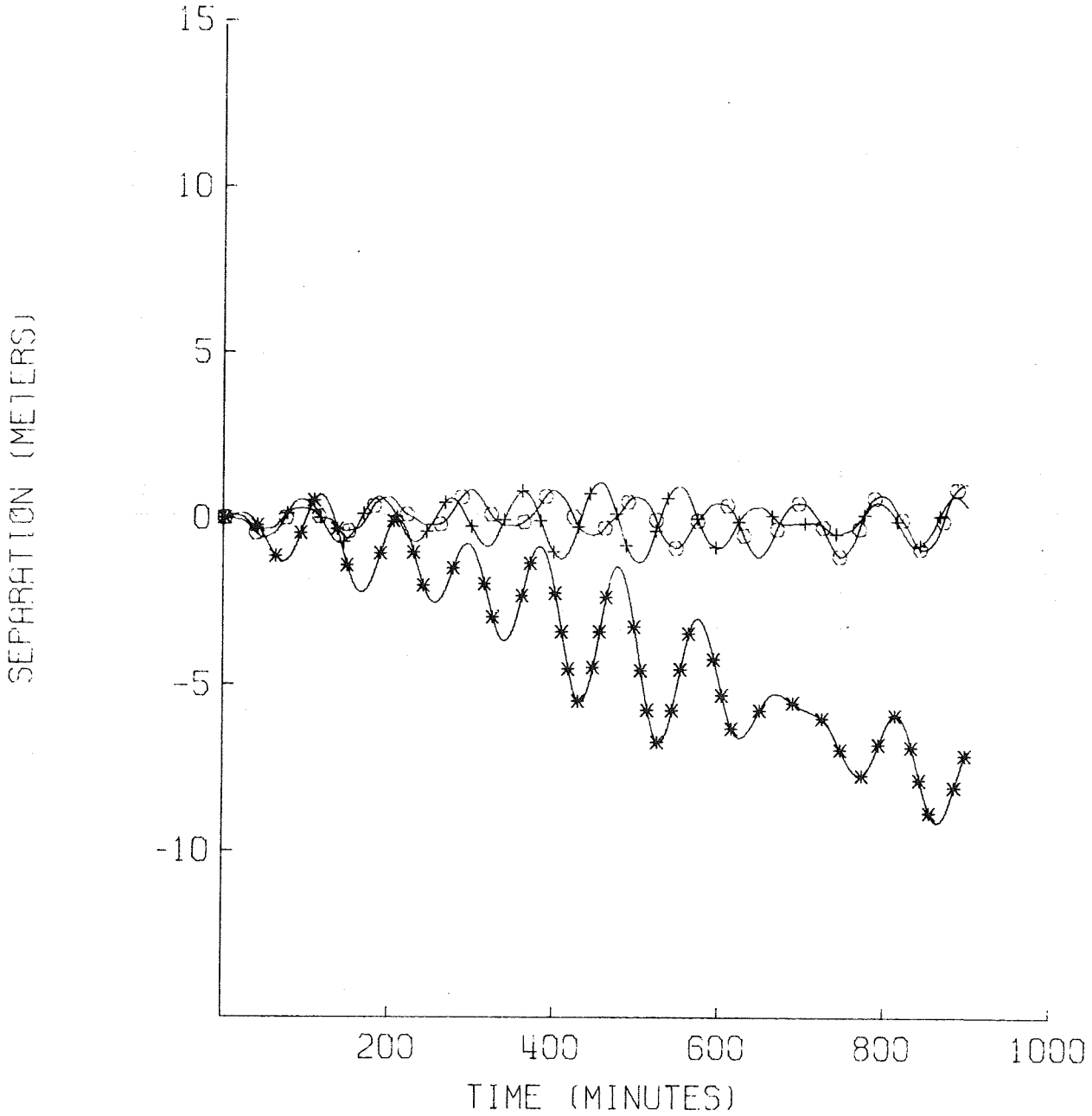
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊕) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(9 ,2) = .0418
FACTOR USED IS 1.000000

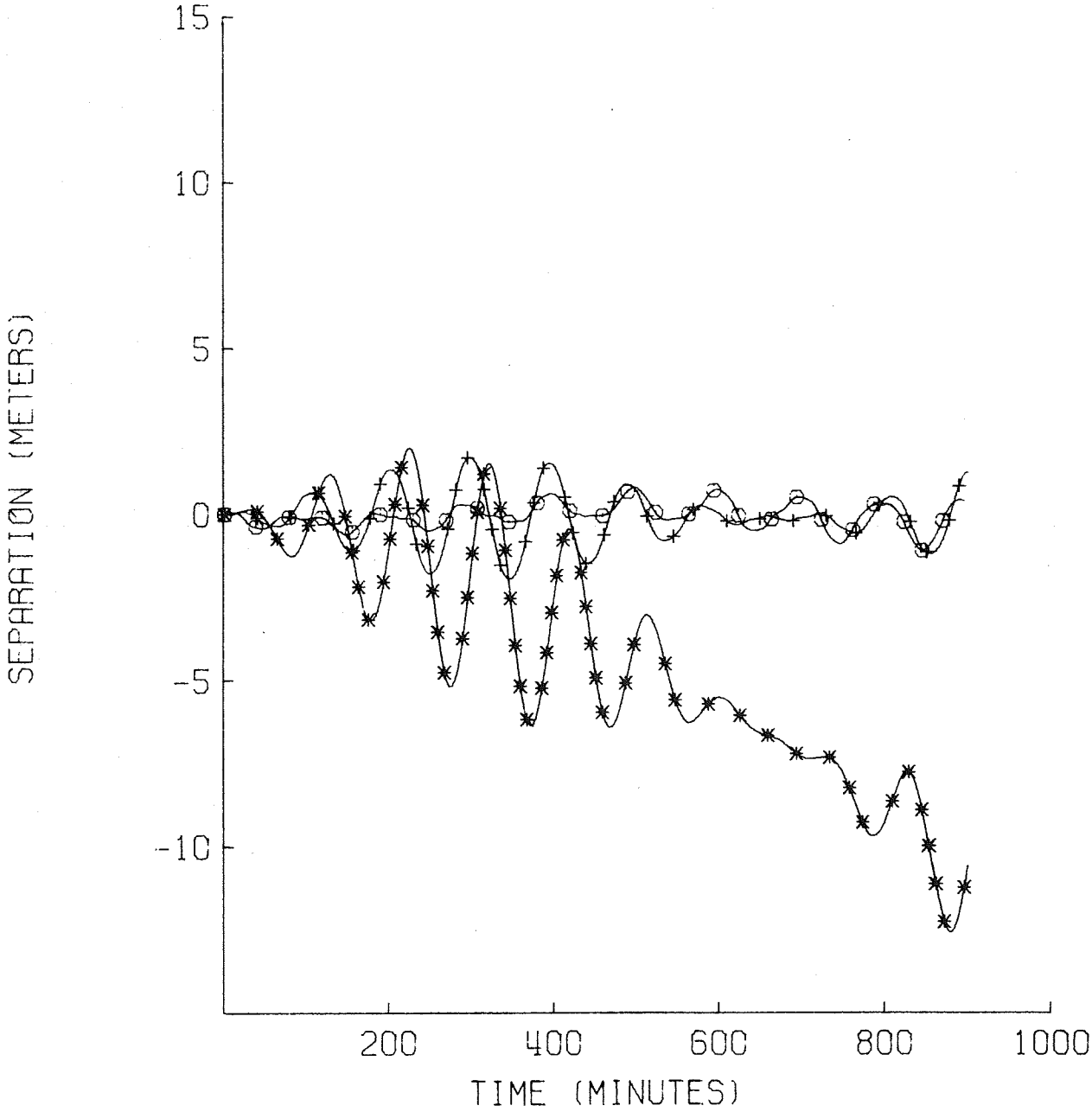
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(9 ,2) = -.0452
FACTOR USED IS 1.000000

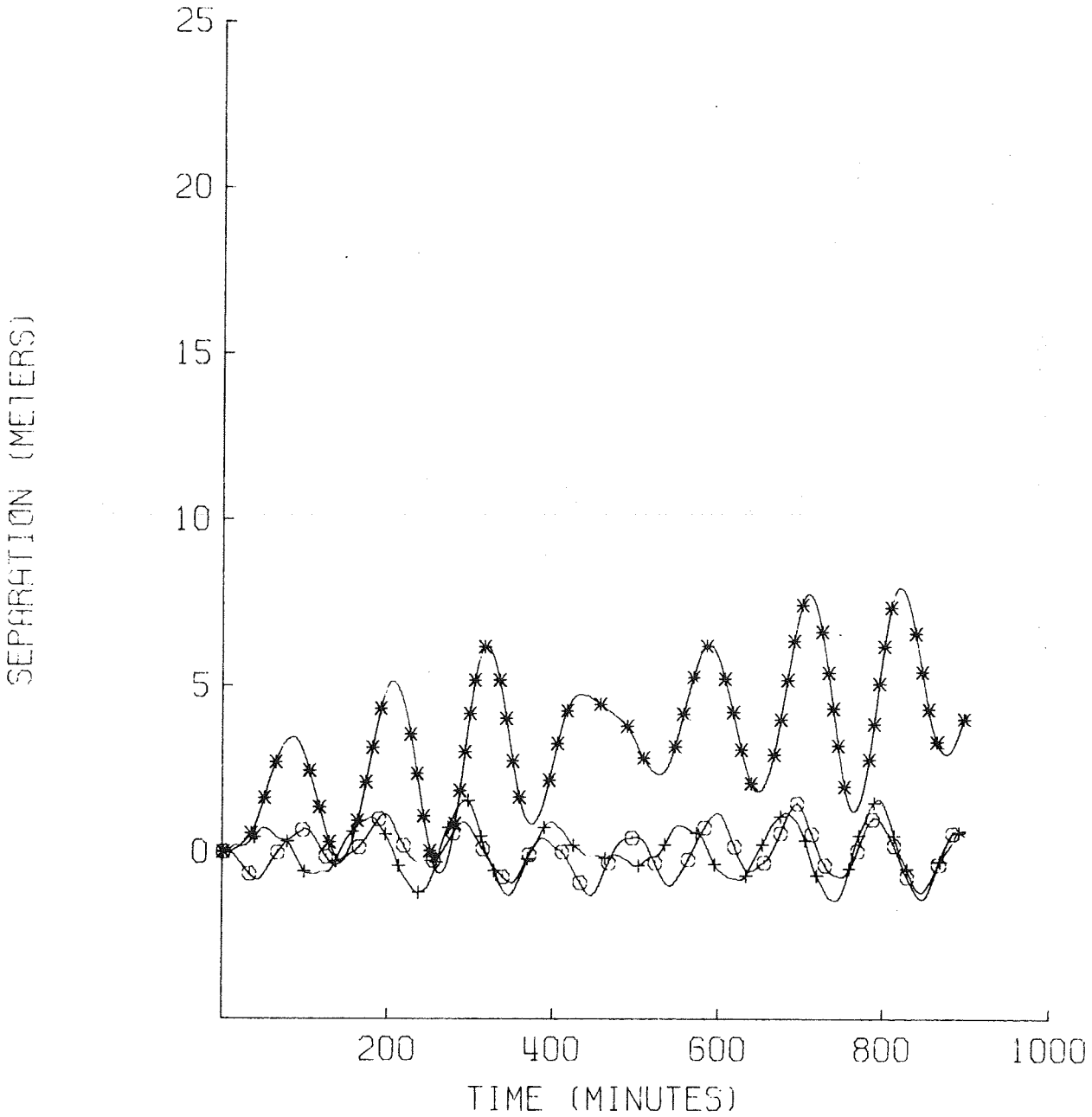
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(9 ,3) = -.0575
FACTOR USED IS 1.000000

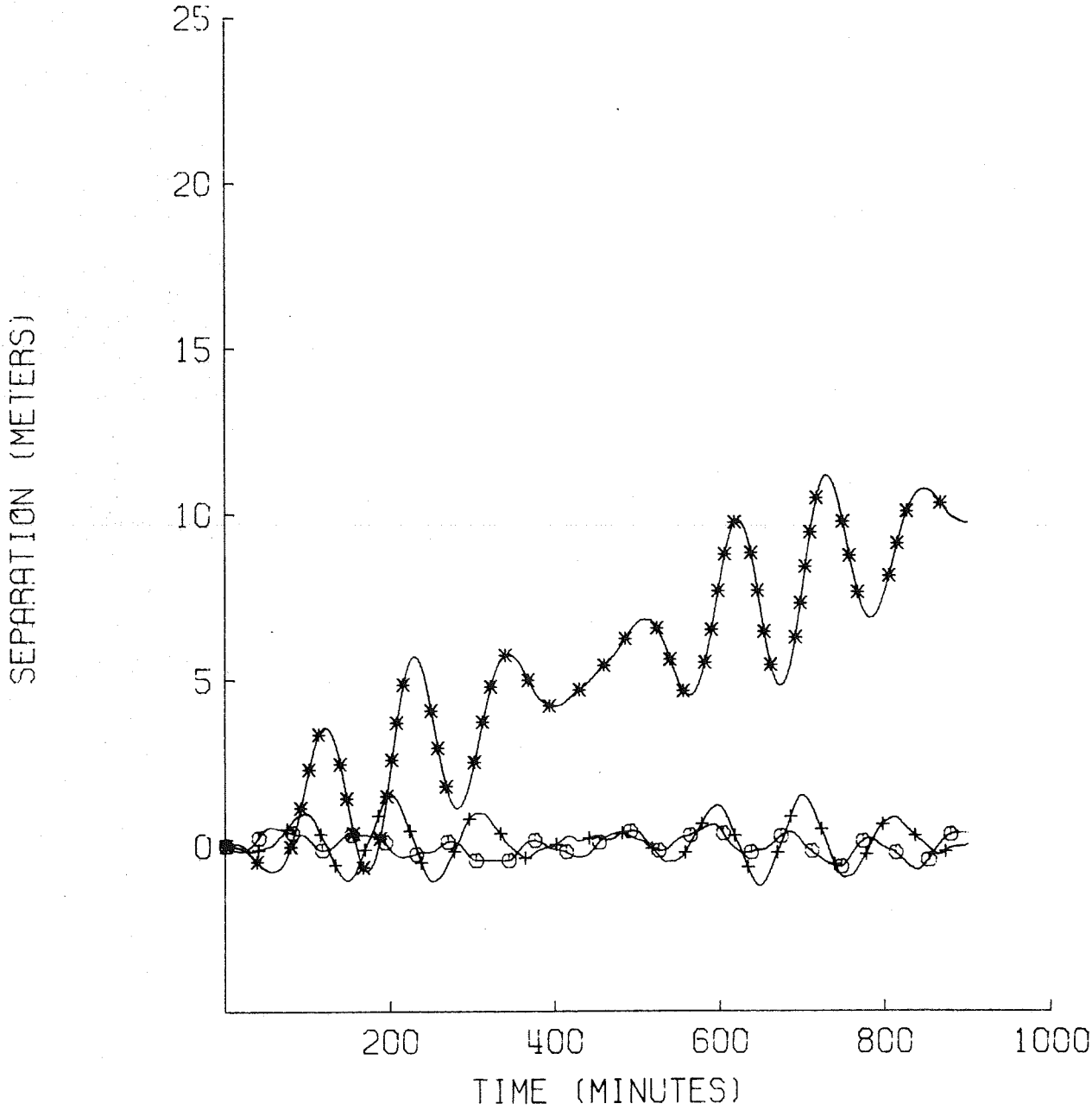
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊖) BI-NORMAL CROSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(9 ,3) = -.0415
FACTOR USED IS 1.000000

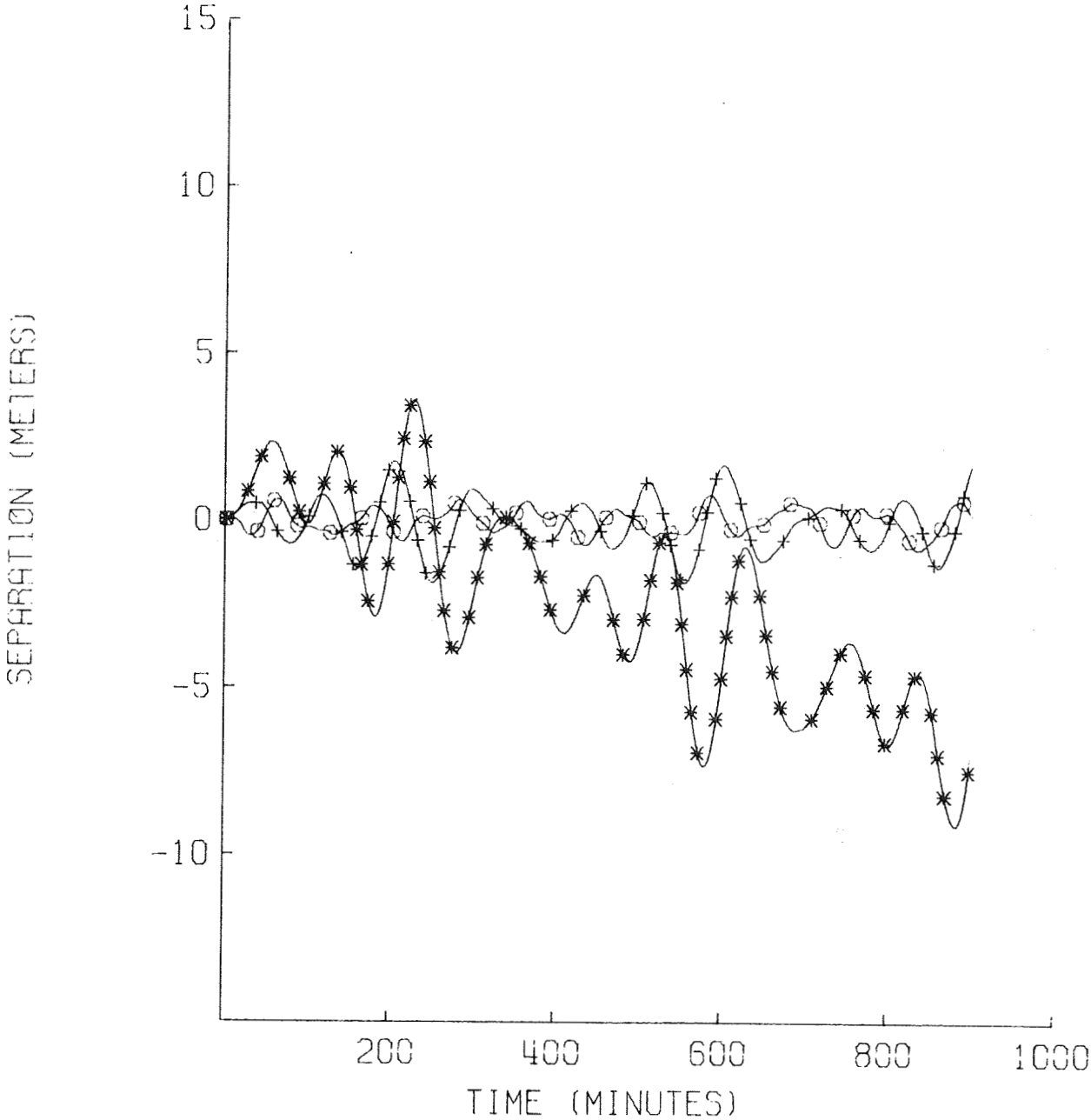
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊖) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(9 ,4) = .0502
FACTØR USED IS 1.000000

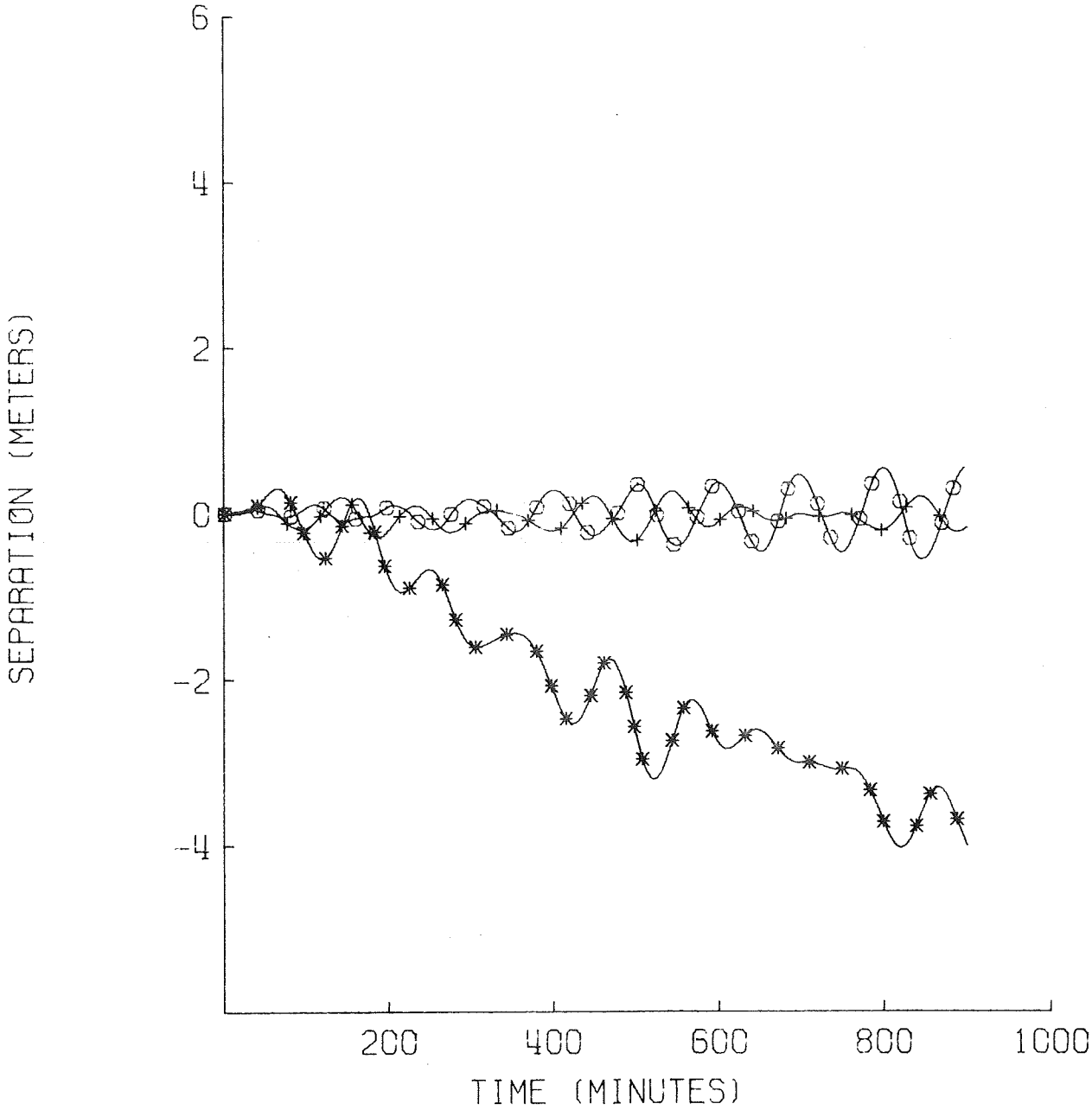
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⦶) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(9 ,4) = -.0060
FACTOR USED IS 1.000000

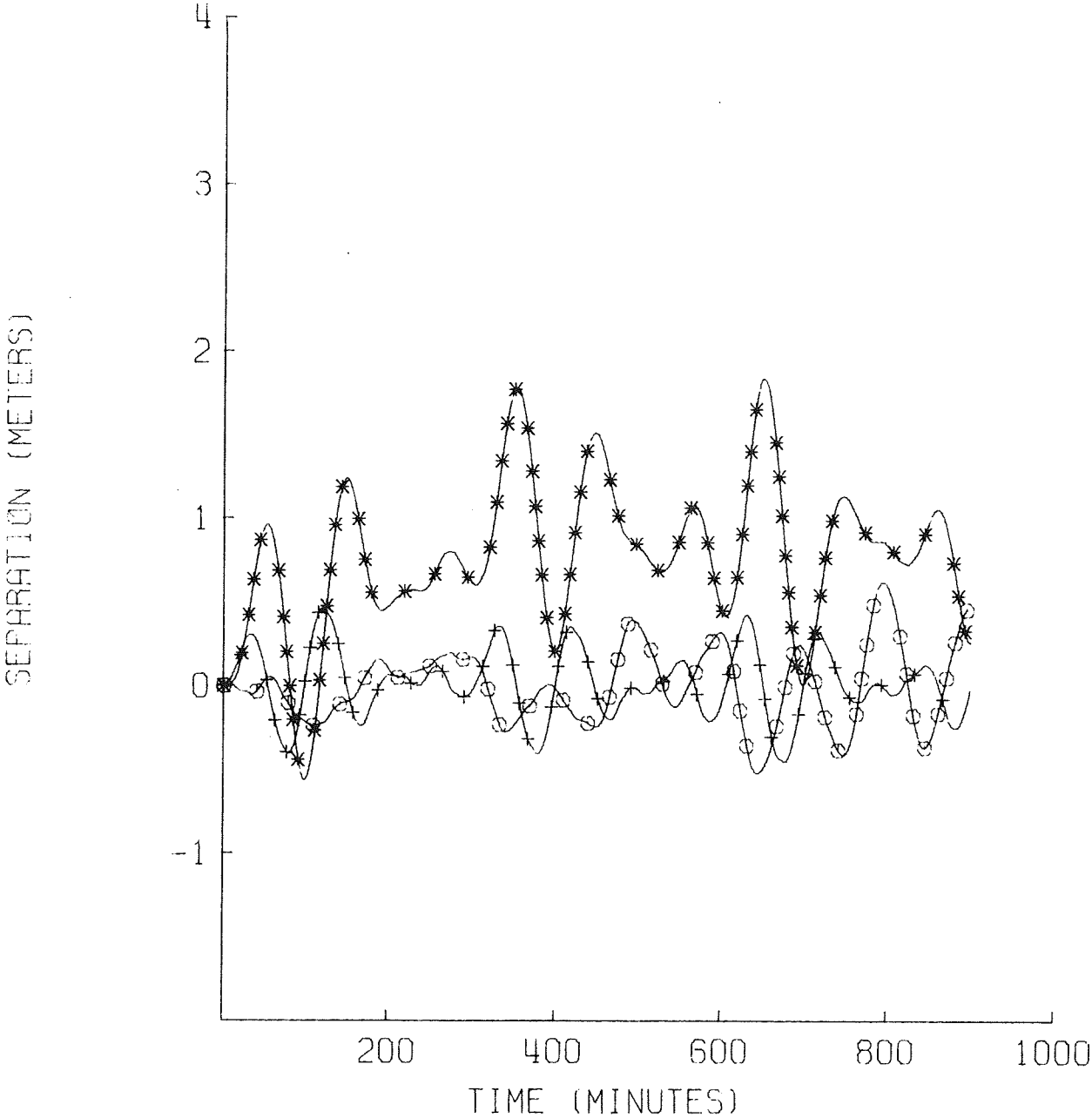
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊙) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(9 ,5) = -.0135
FACTØR USED IS 1.000000

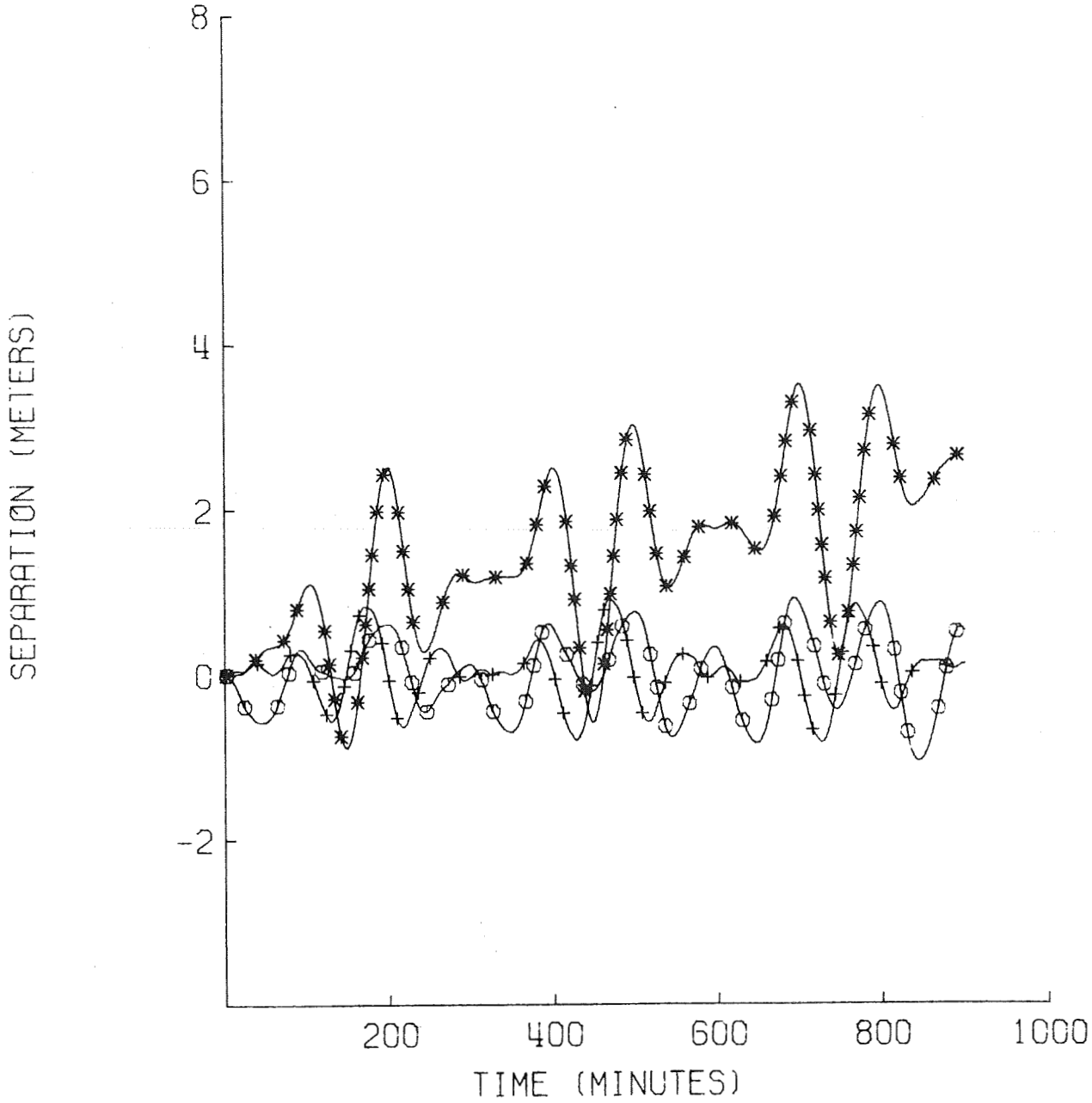
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊘) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(9 ,5) = -.0241
FACTØR USED IS 1.000000

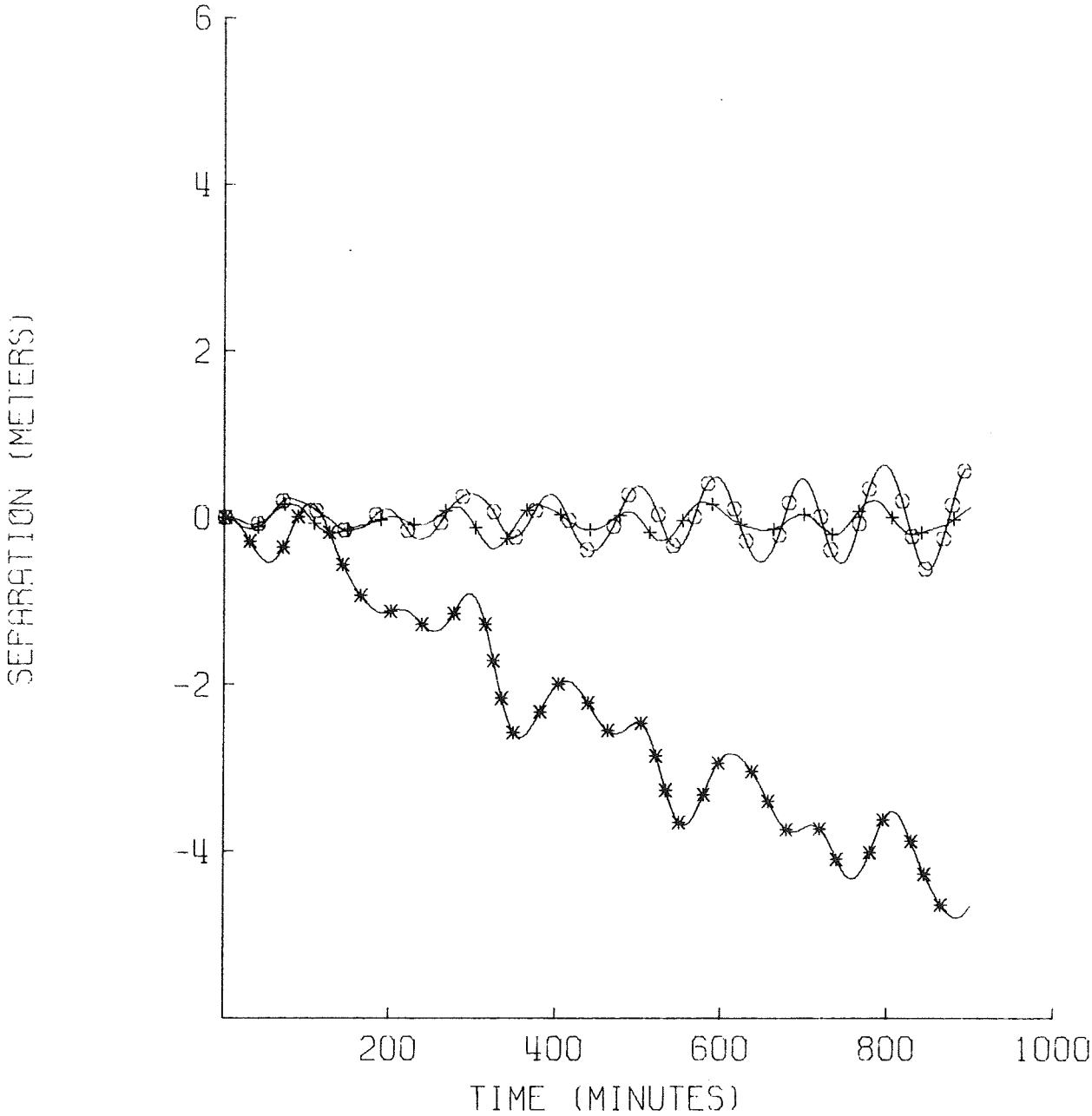
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(9 ,6) = -.0074
FACTØR USED IS 1.000000

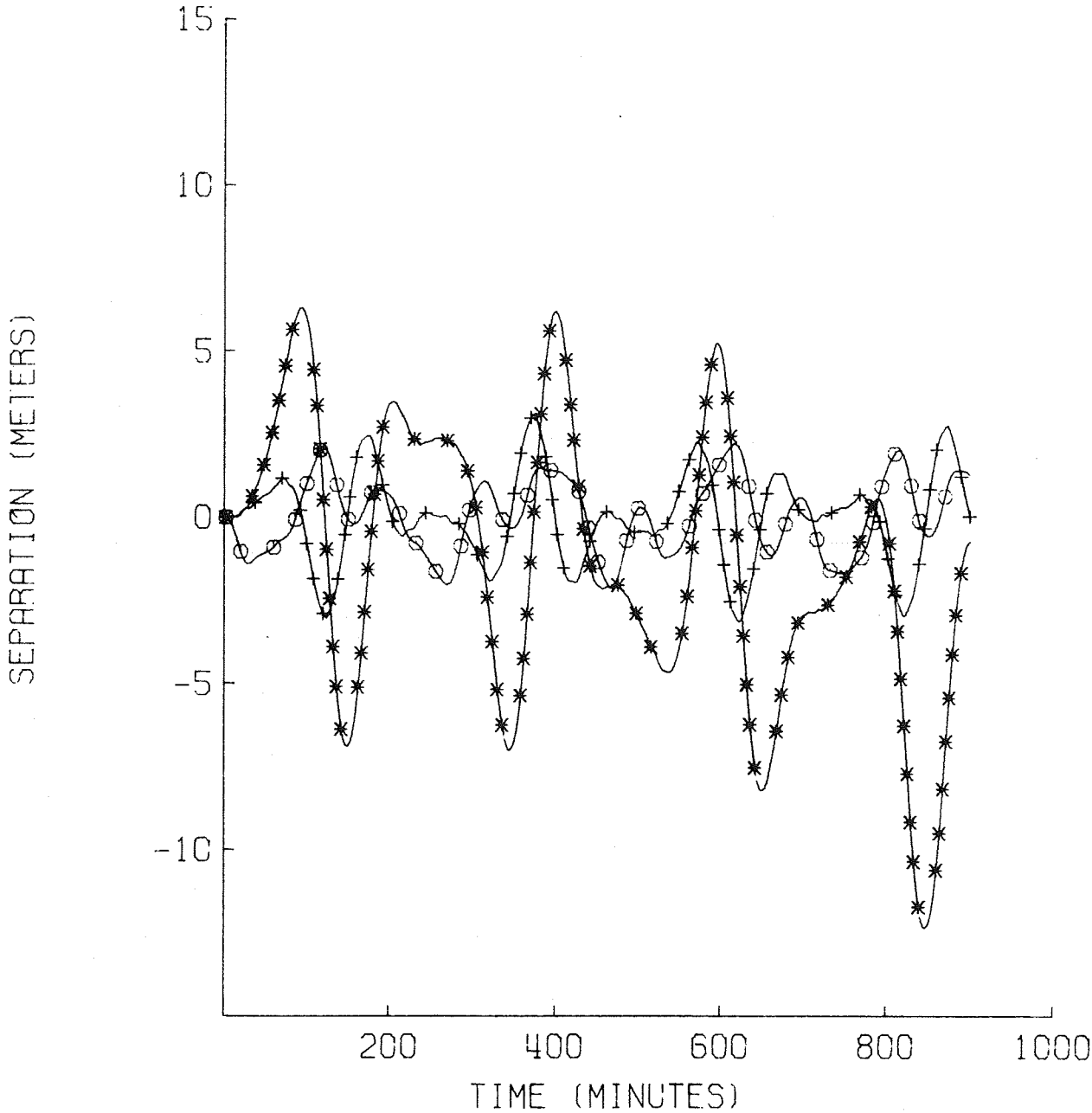
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊘) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(9 ,6) = .0812
FACTOR USED IS 1.000000

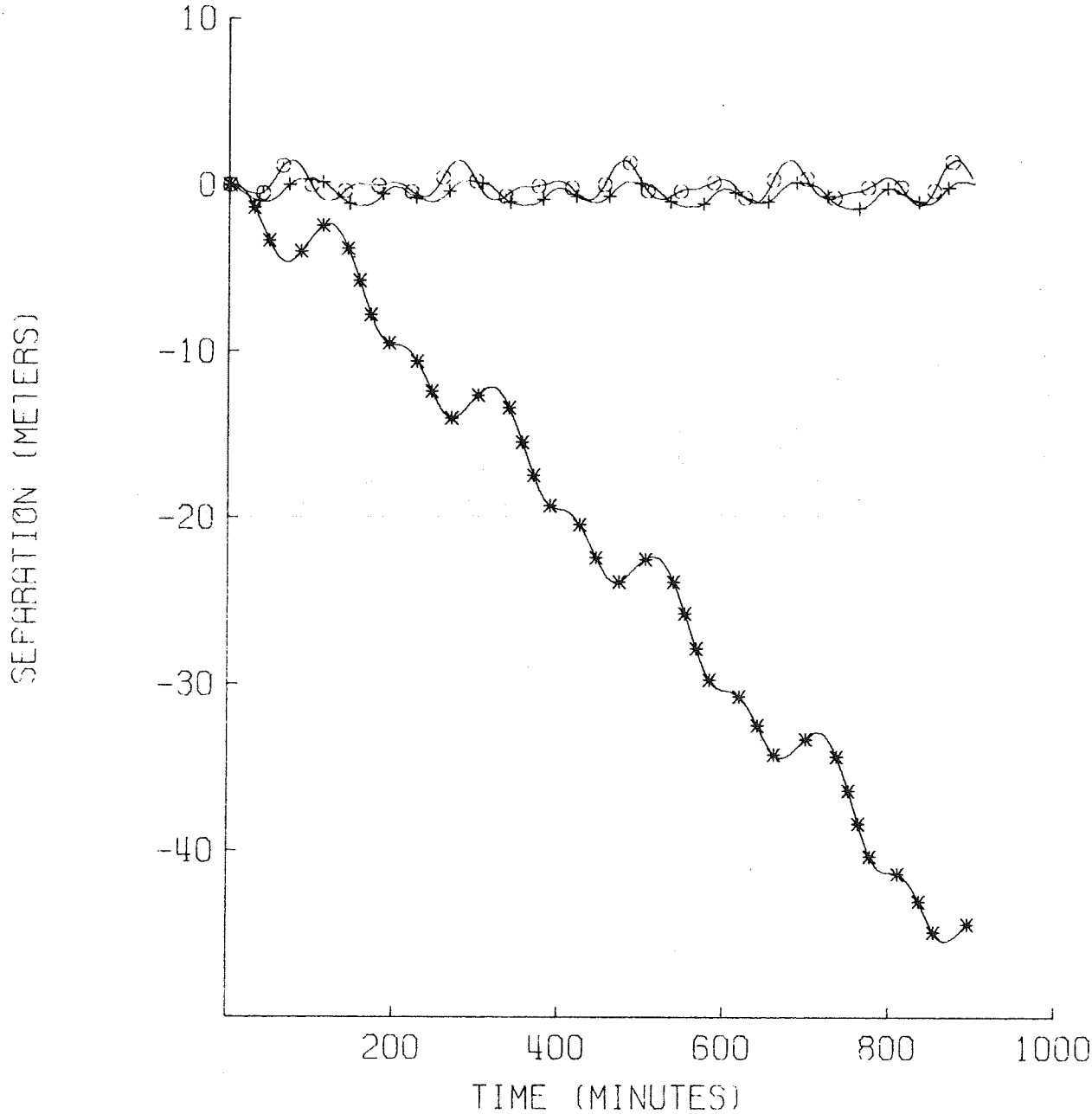
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊕) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(9 ,7) = .0386
FACTØR USED IS 1.000000

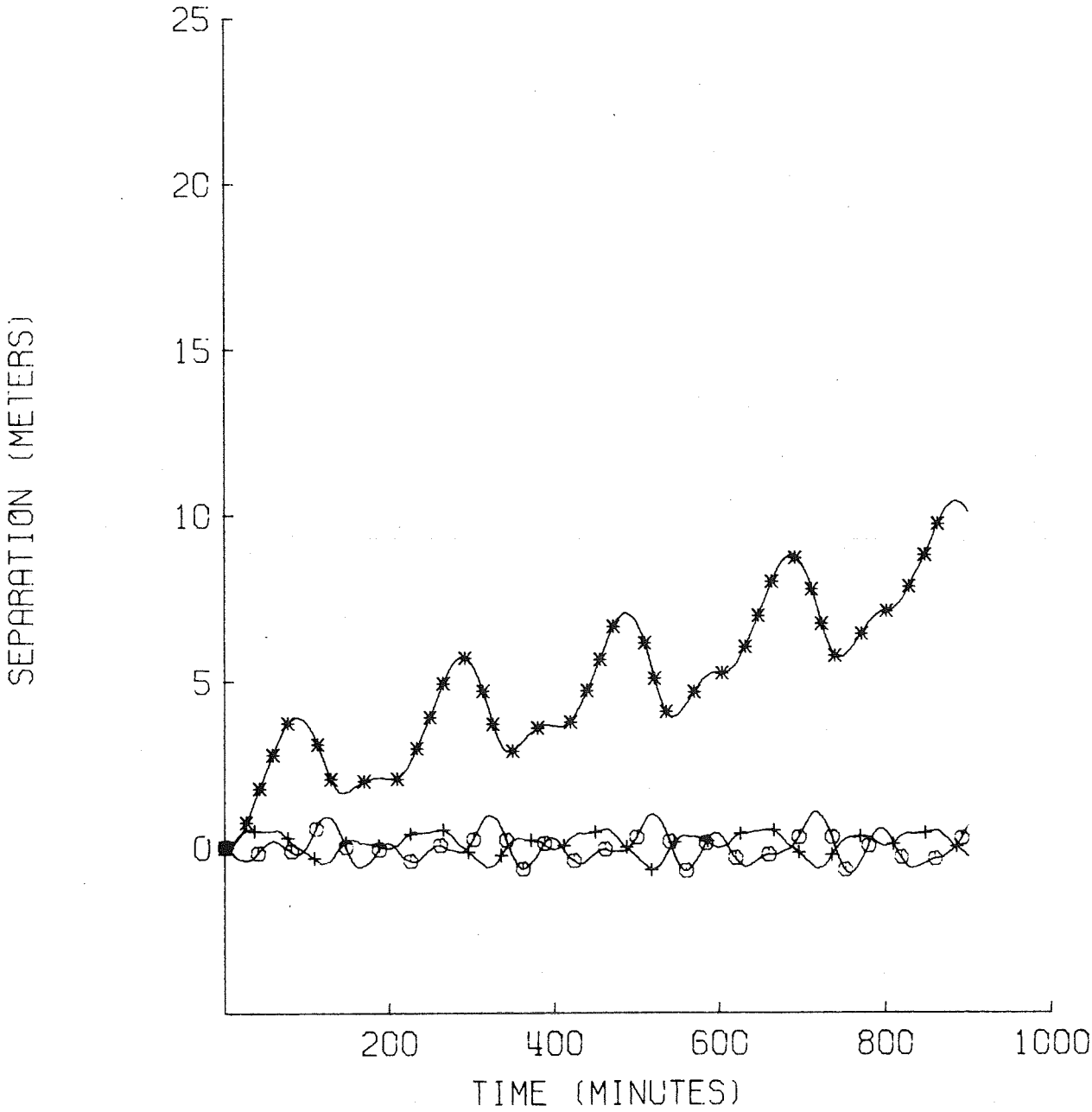
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(9 ,7) = -.0343
FACTØR USED IS 1.000000

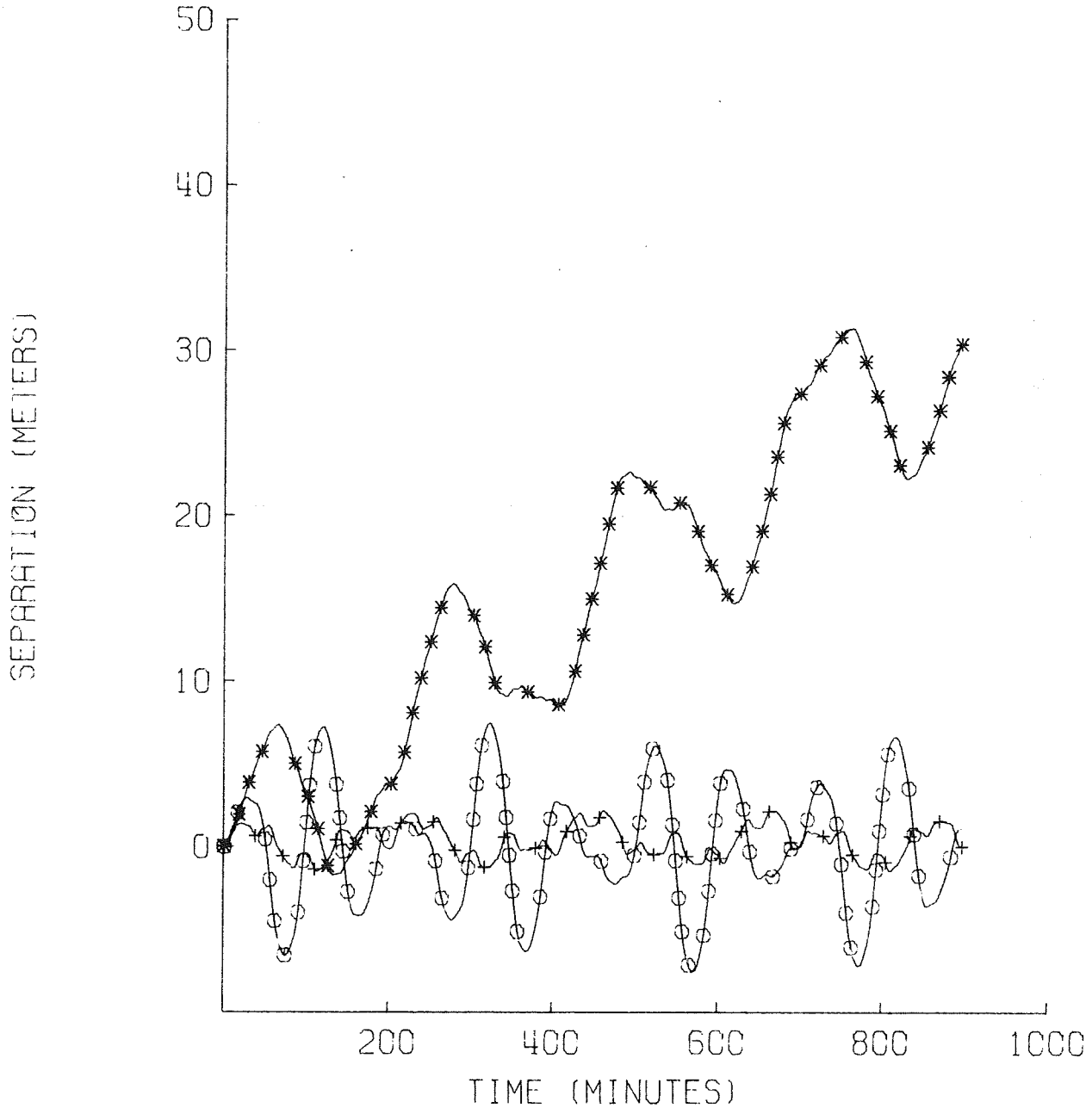
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊕) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(9 ,8) = .2436
FACTOR USED IS 1.000000

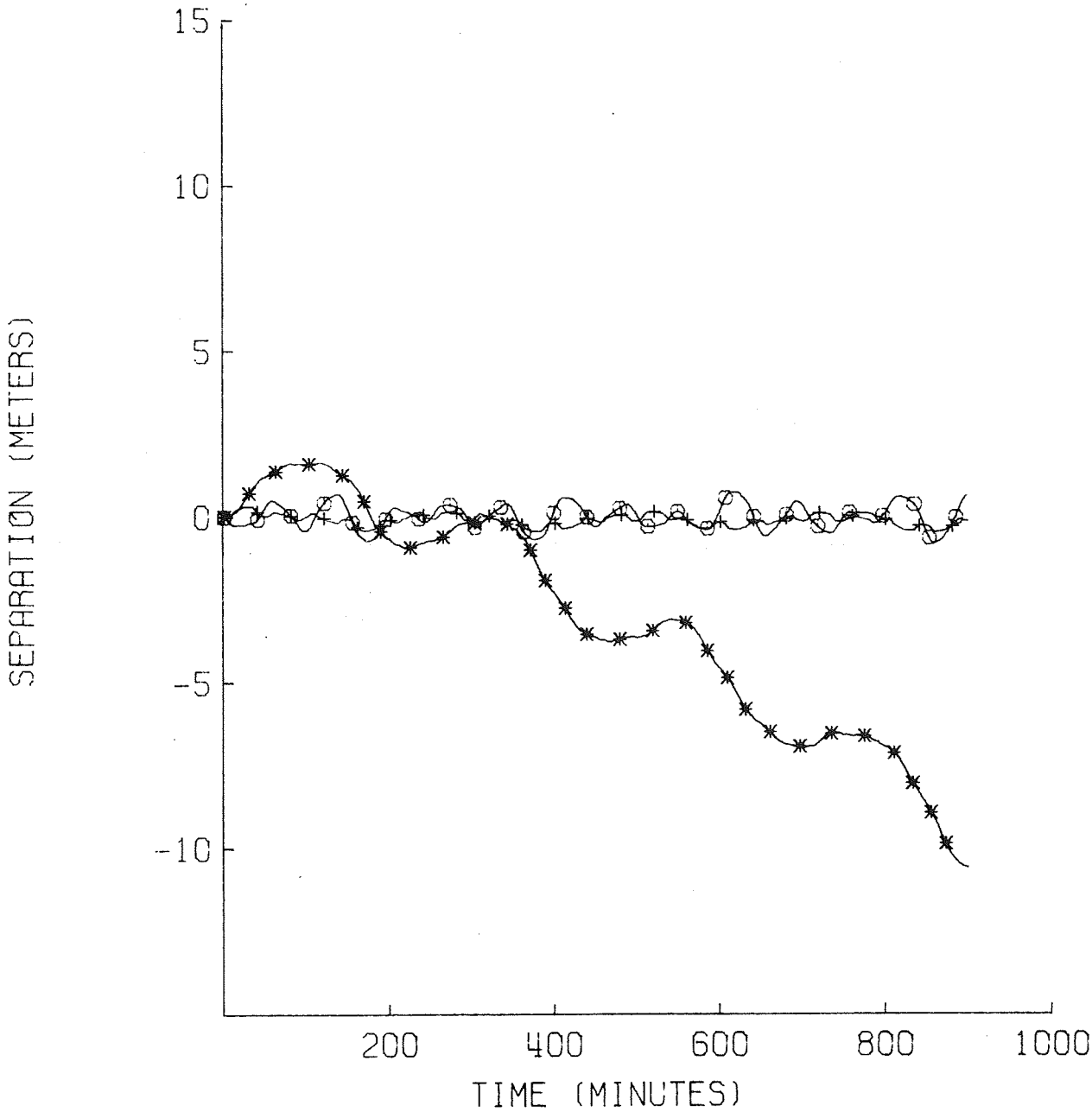
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊖) BI-NORMAL CROSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(9 ,8) = .0445
FACTOR USED IS 1.000000

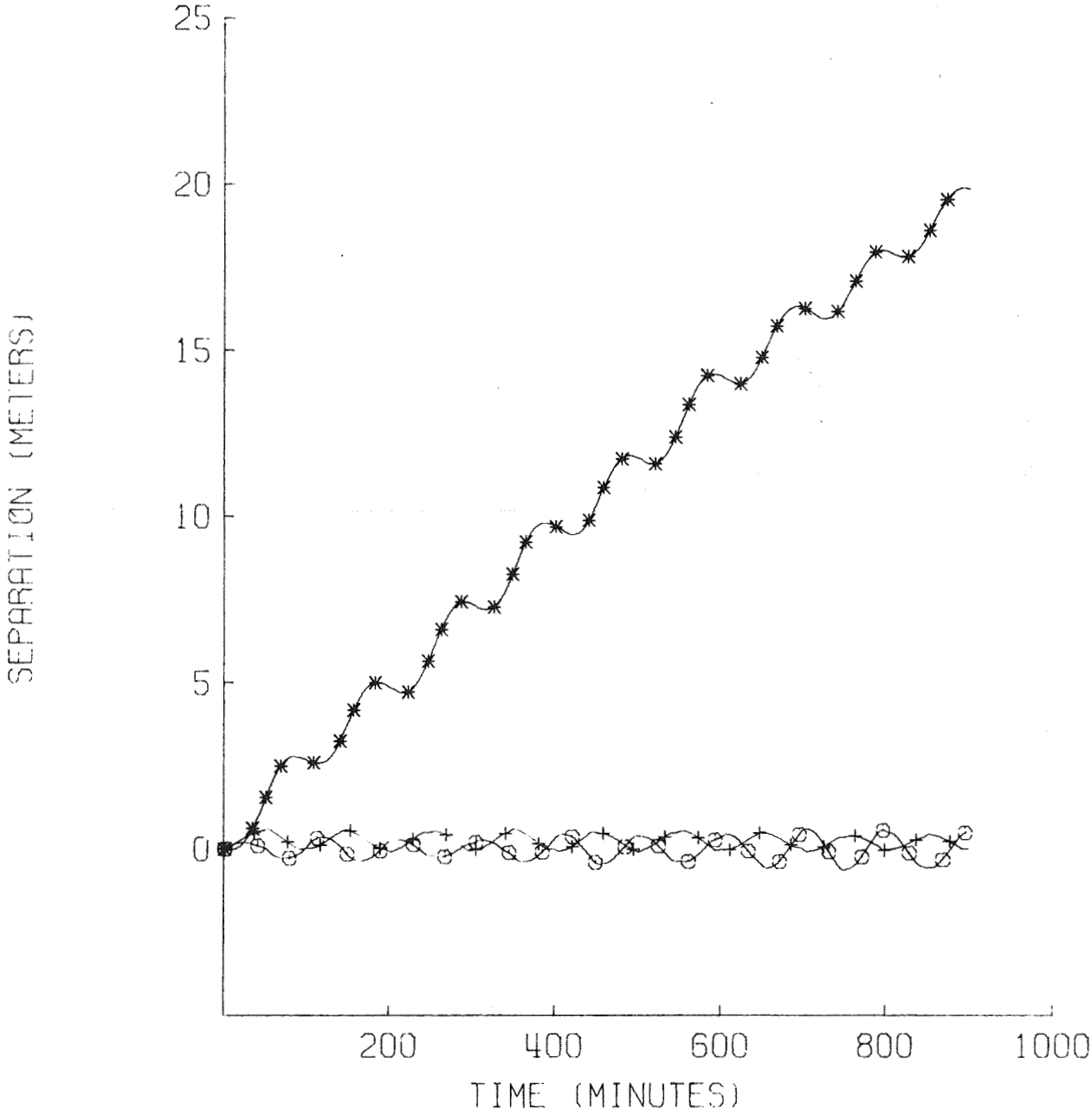
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊕) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(9 ,9) = -.0186
FACTØR USED IS 1.000000

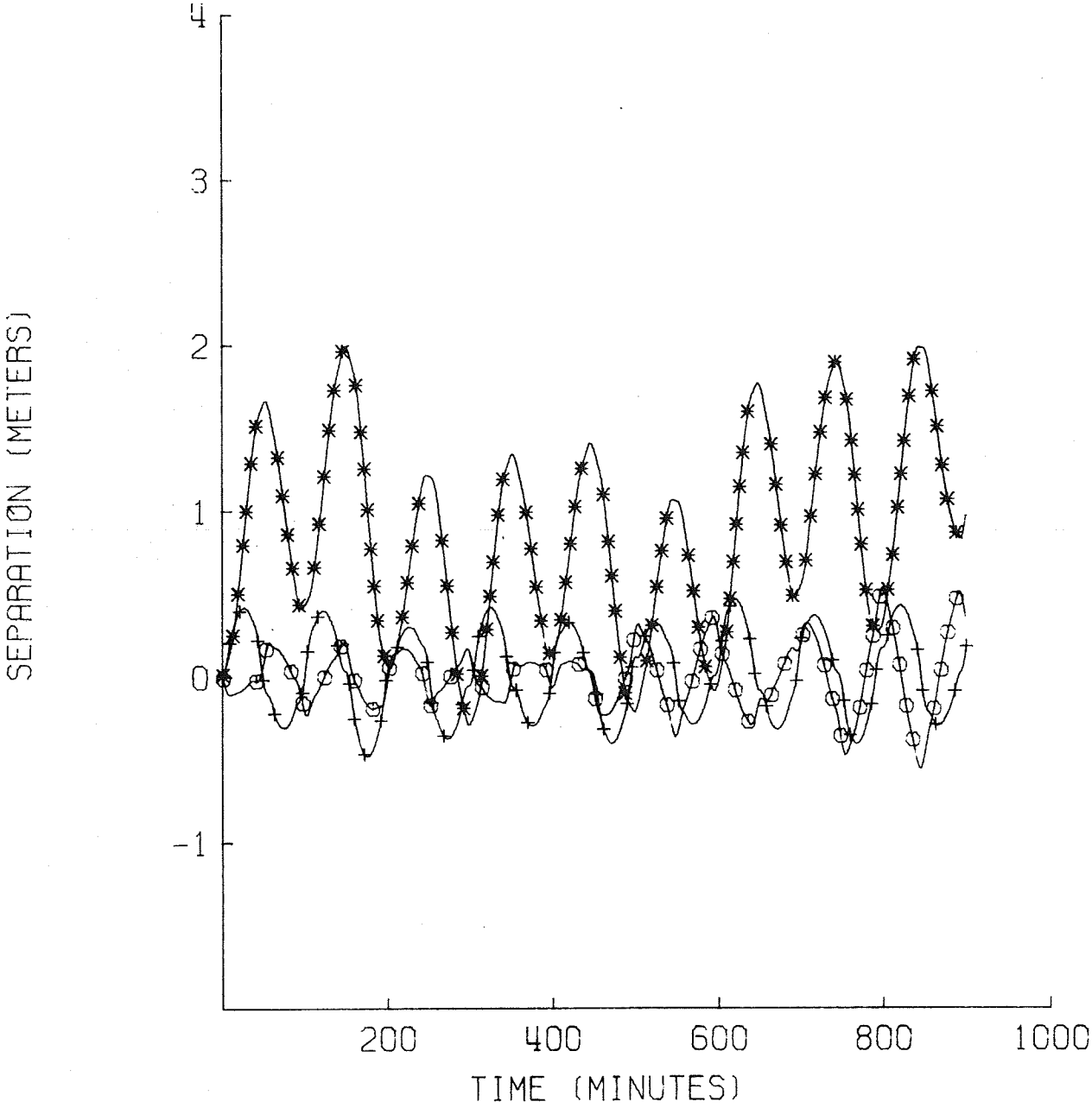
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊘) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(9 ,9) = -.0342
FACTOR USED IS 1.000000

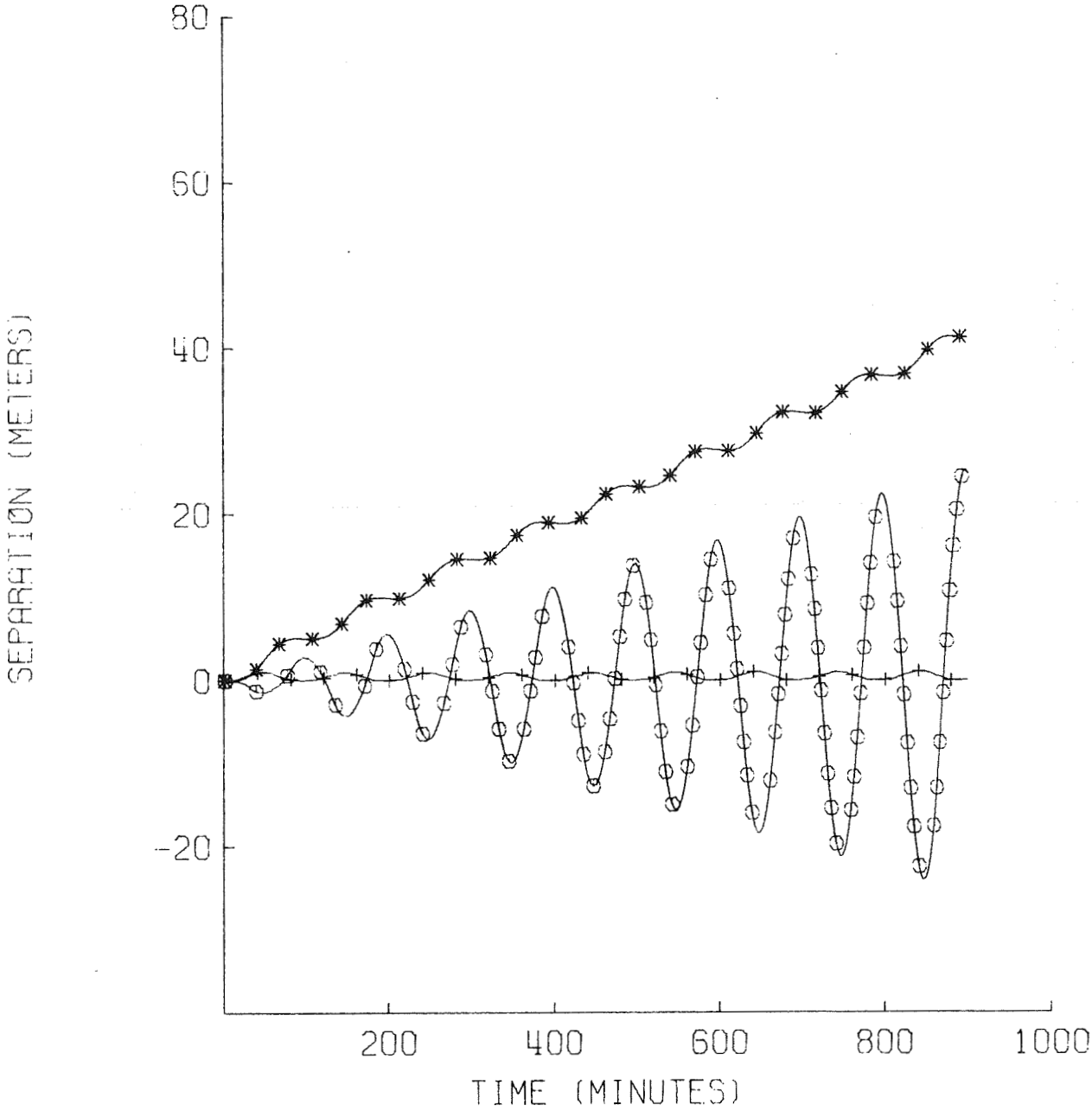
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊙) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(10 ,0) = -.0589
FACTØR USED IS 1.000000

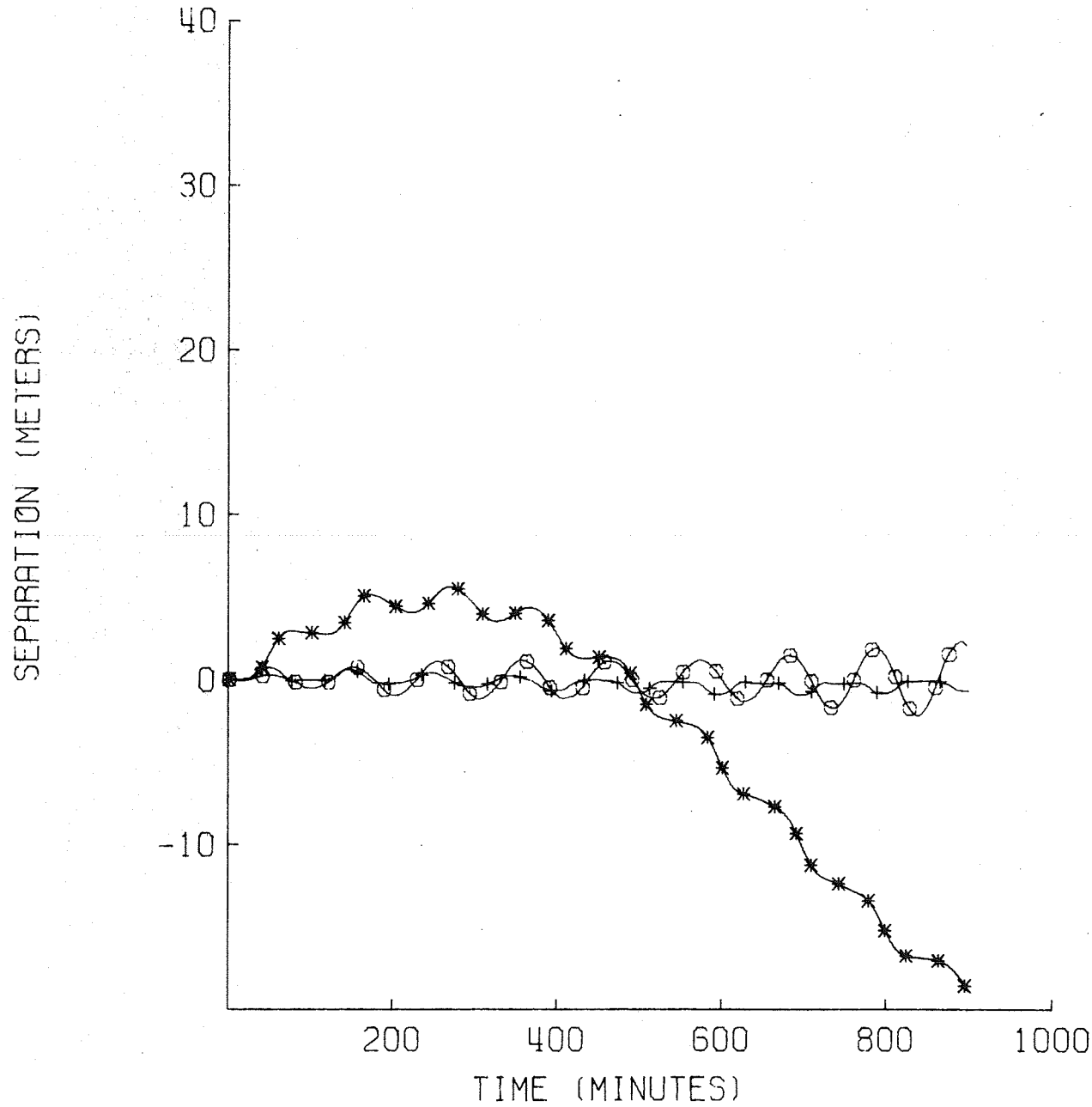
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊕) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(10 ,1) = .0773
FACTØR USED IS 1.000000

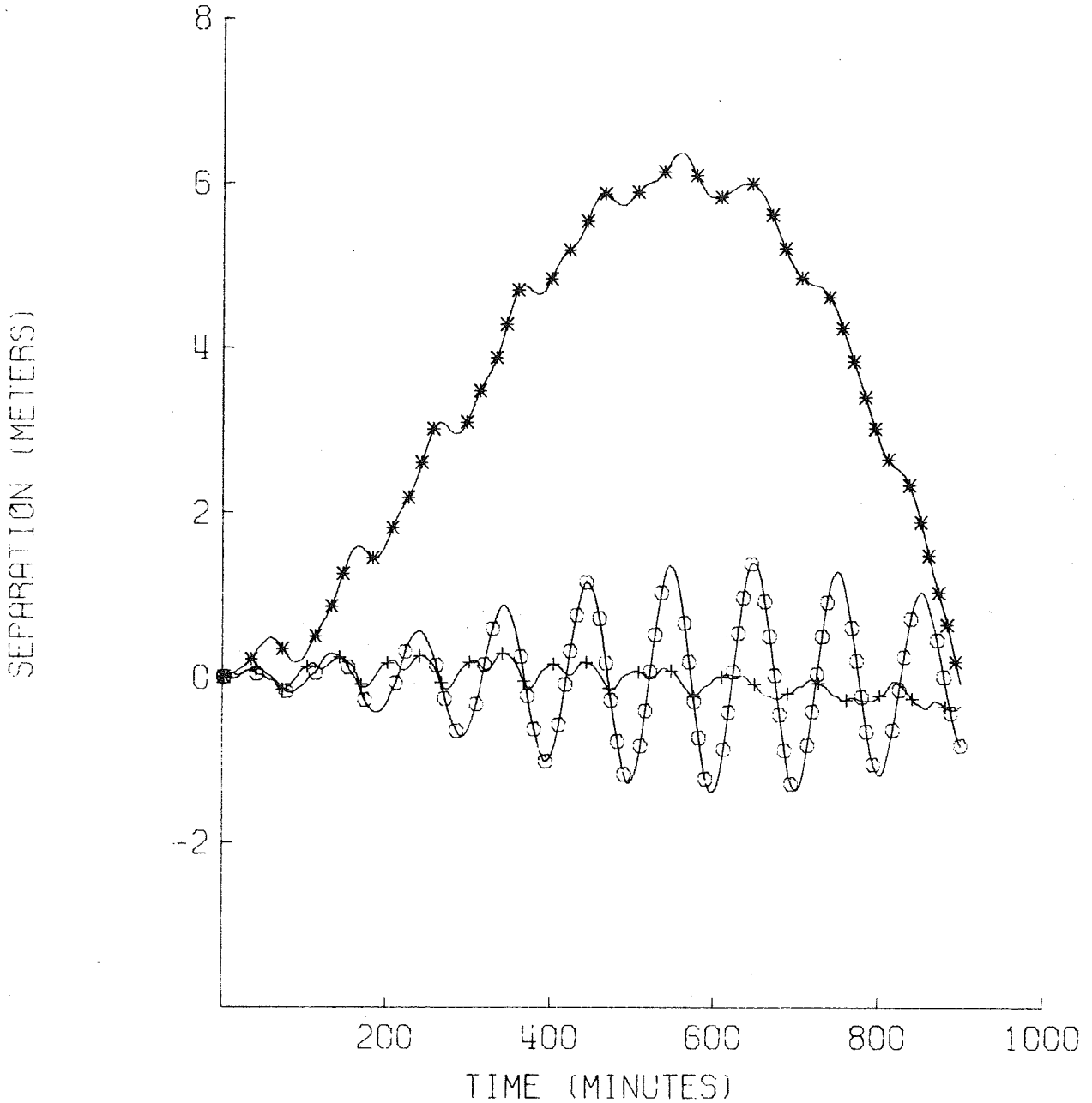
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(10 ,1) = -.0493
FACTOR USED IS 1.000000

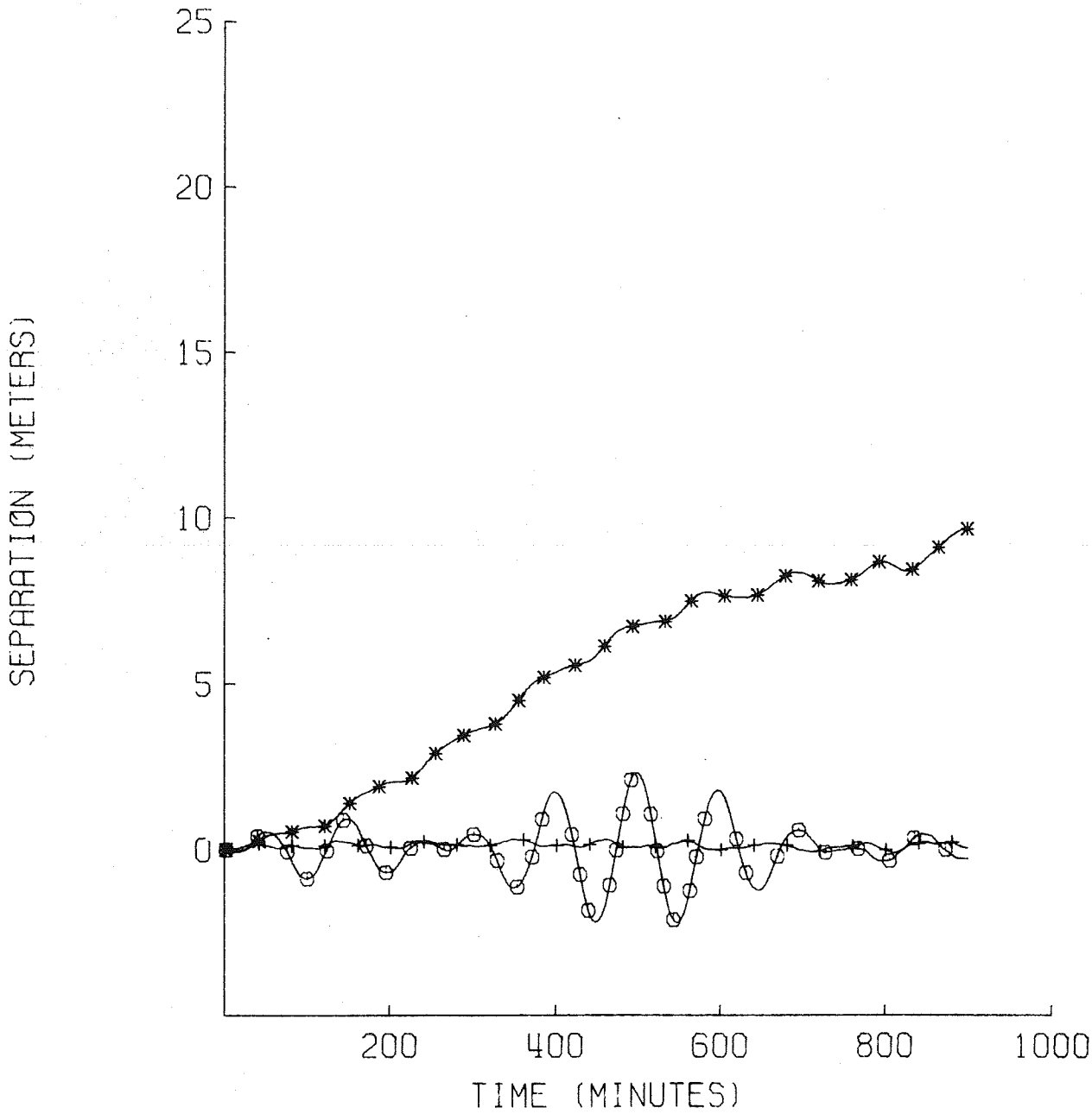
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(10 ,2) = -.0398
FACTØR USED IS 1.000000

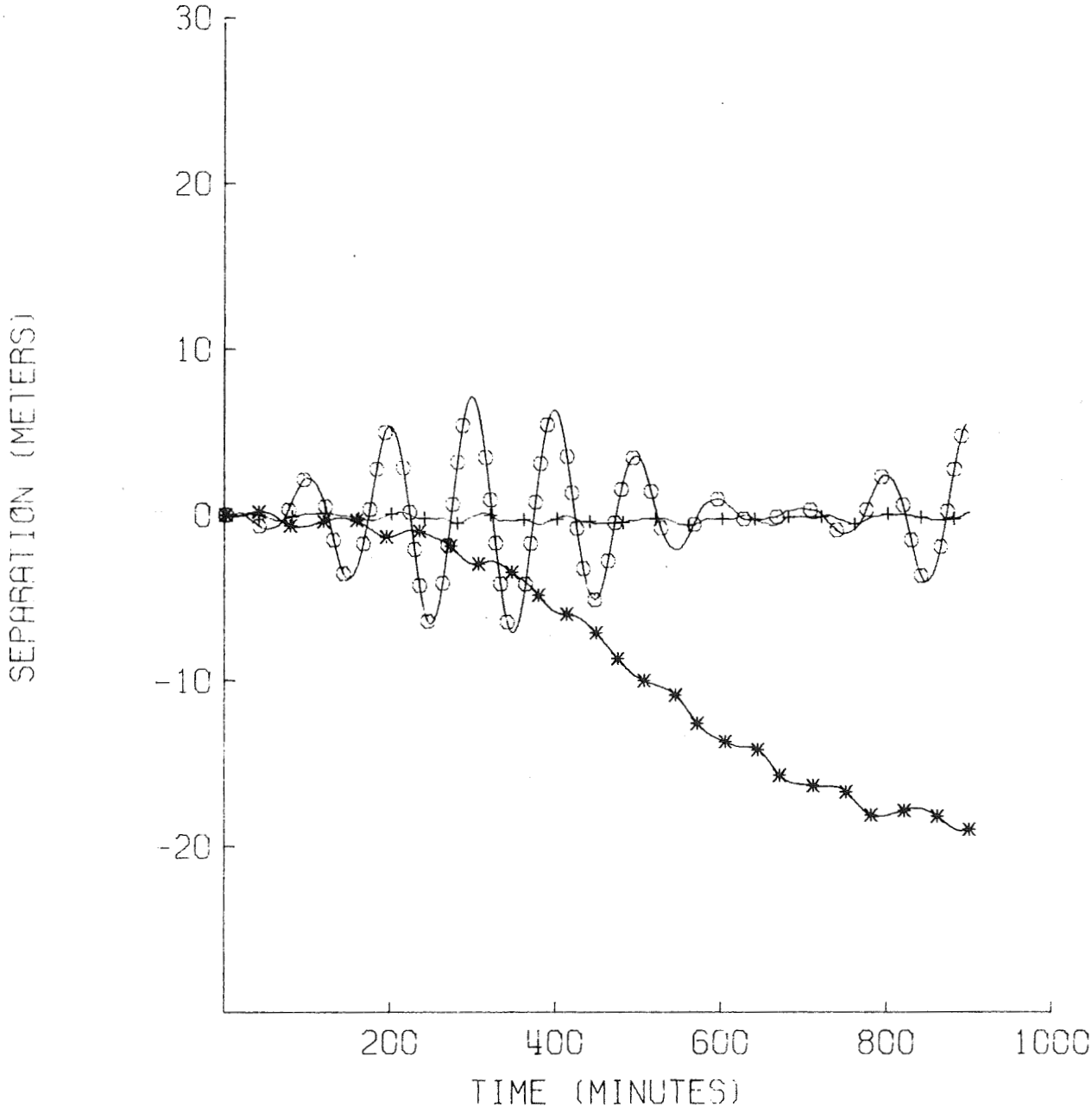
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(10 ,2) = -.0933
FACTOR USED IS 1.000000

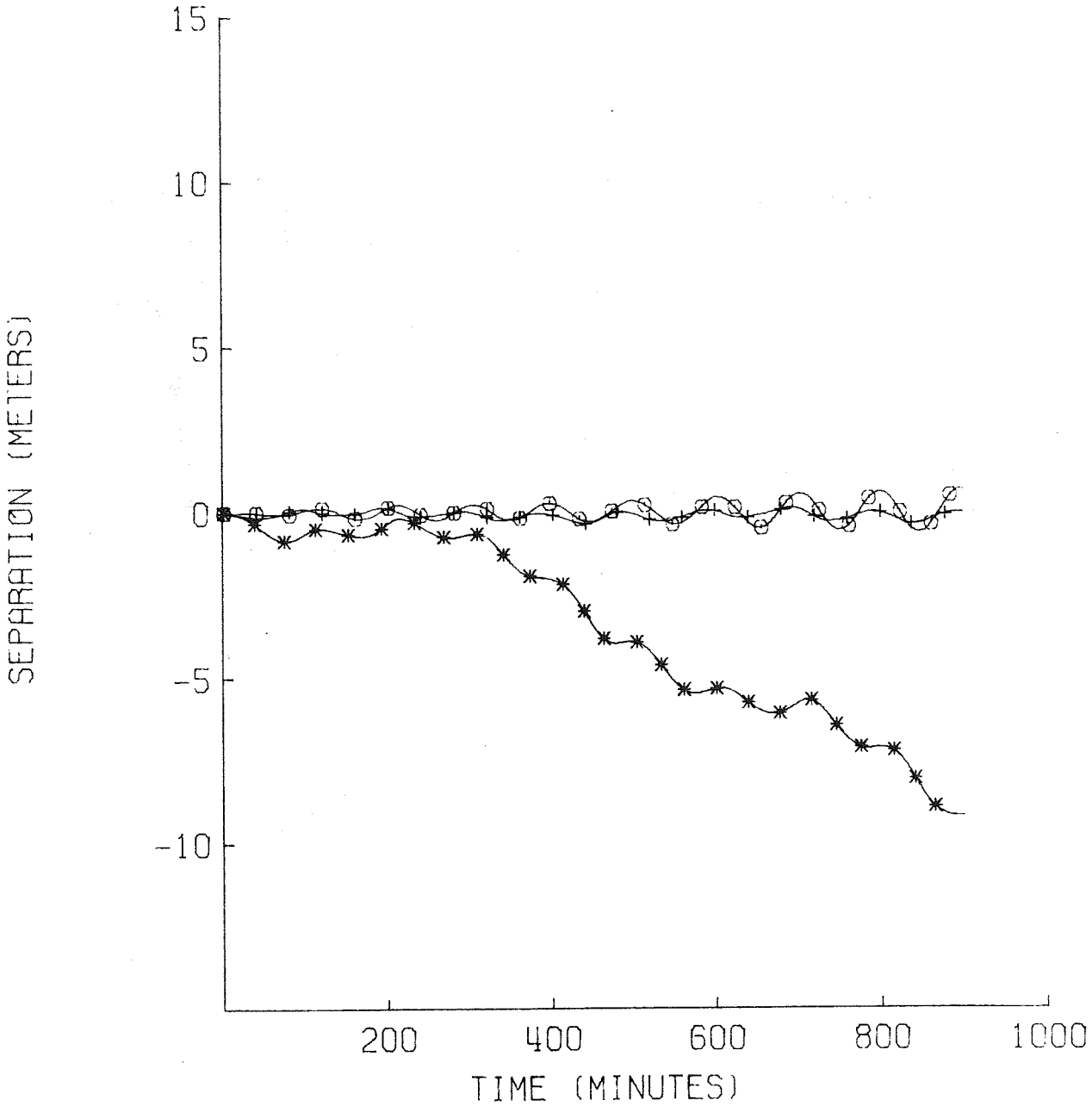
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(10 ,3) = .0082
FACTØR USED IS 1.000000

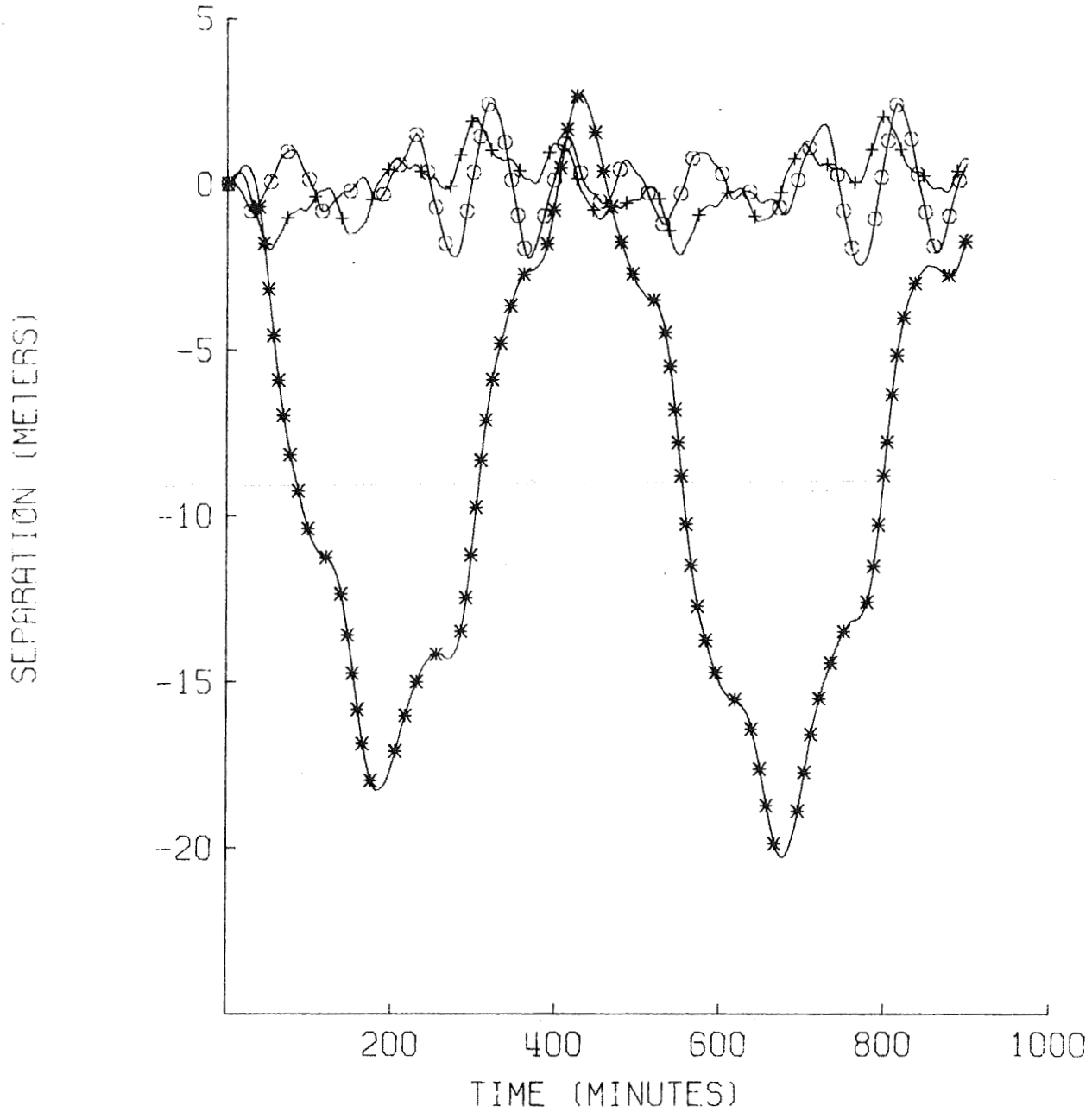
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊕) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(10 ,3) = -.1347
FACTØR USED IS 1.000000

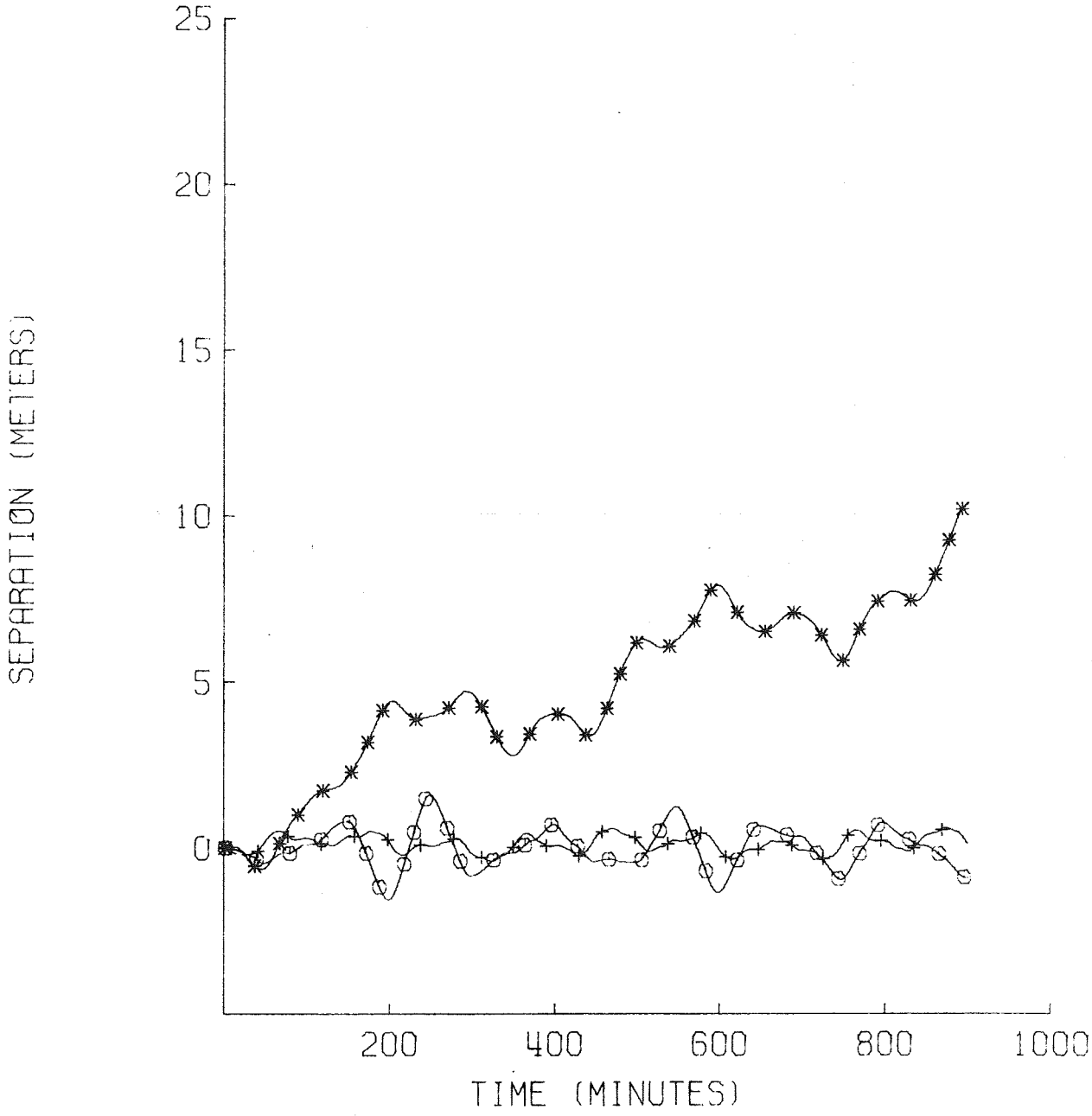
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊕) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(10 ,4) = -.0457
FACTØR USED IS 1.000000

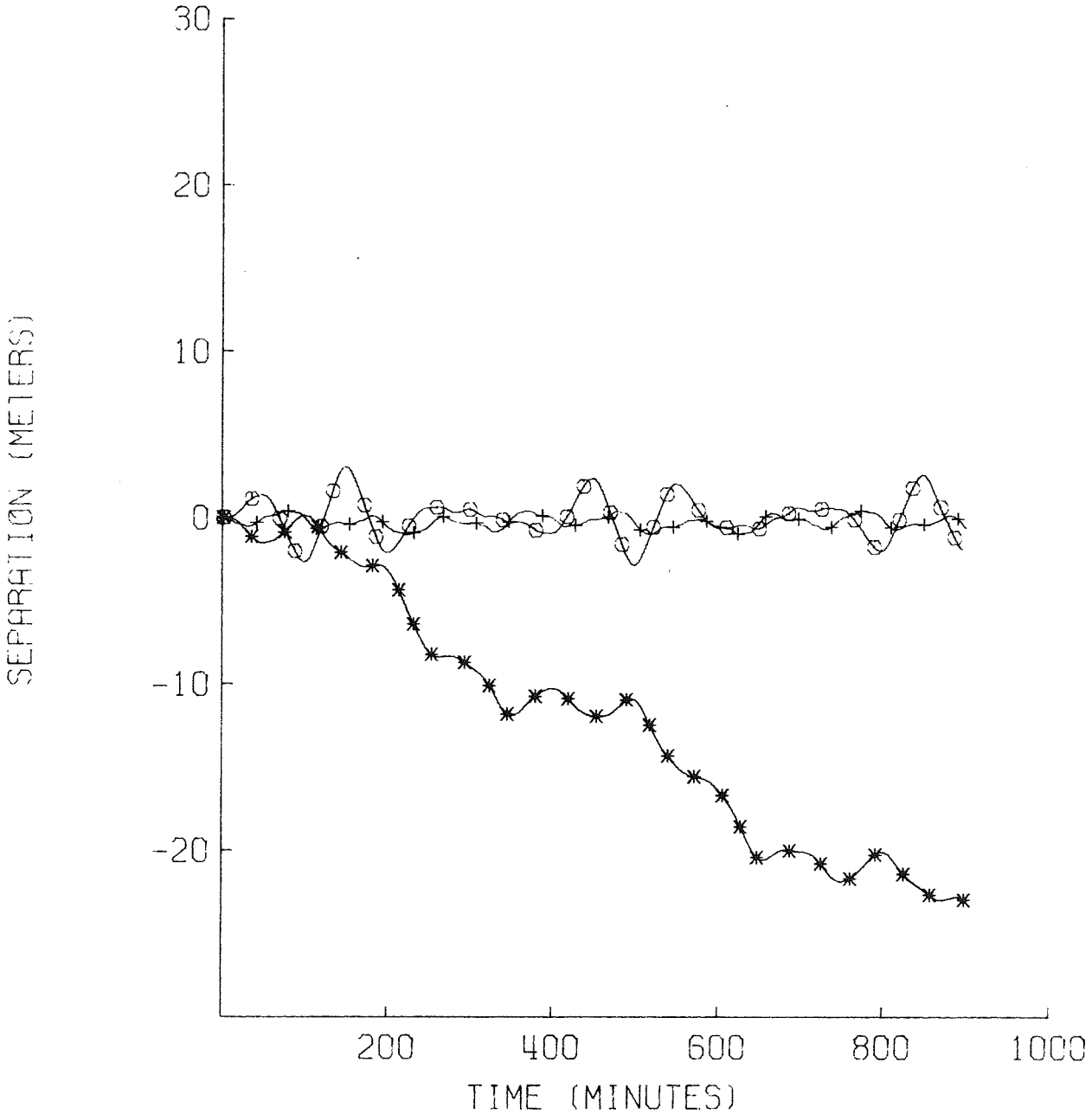
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊕) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(10 ,4) = -.0709
FACTOR USED IS 1.000000

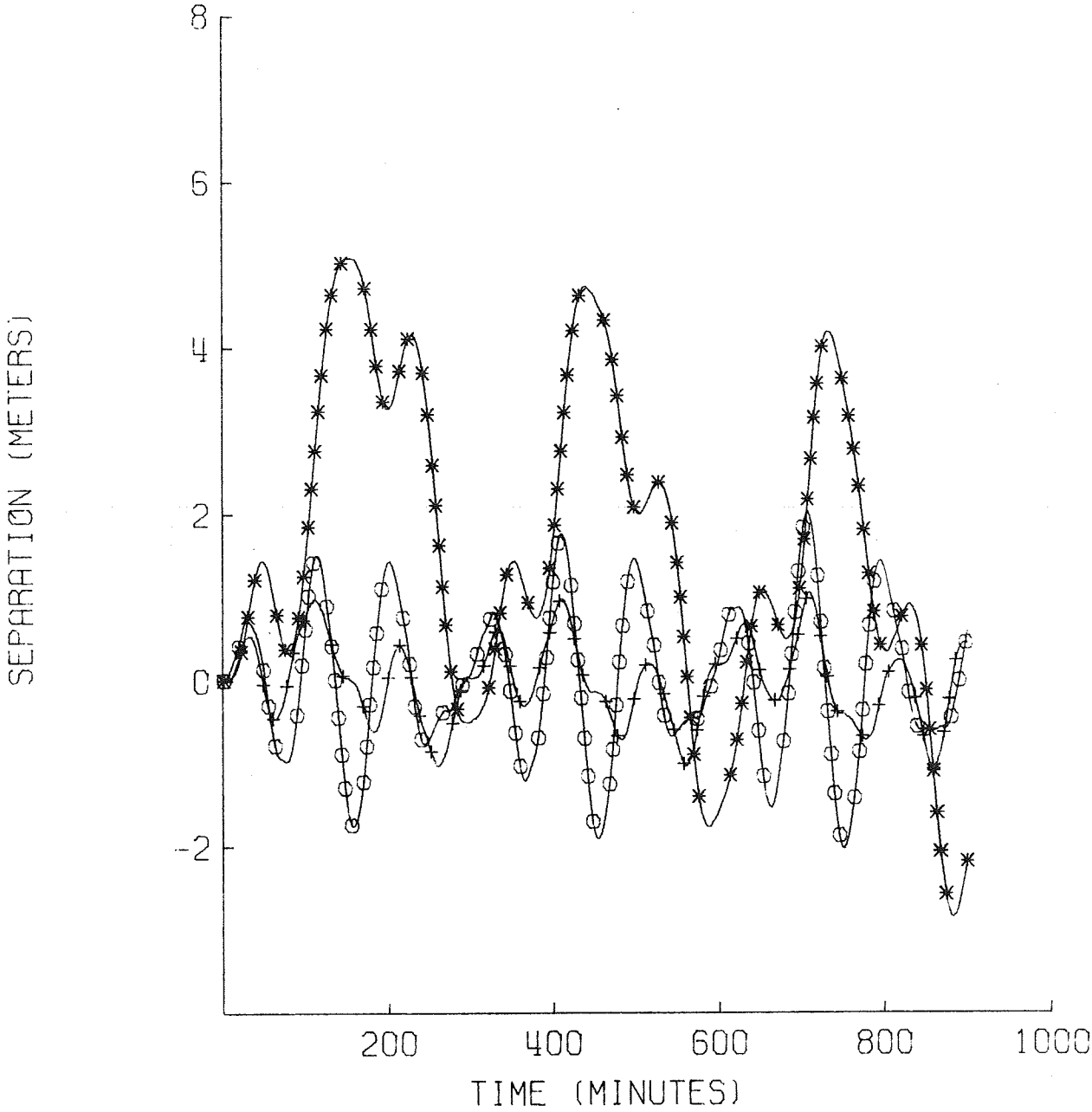
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊘) BI-NORMAL CROSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(10 ,5) = -.0540
FACTOR USED IS 1.000000

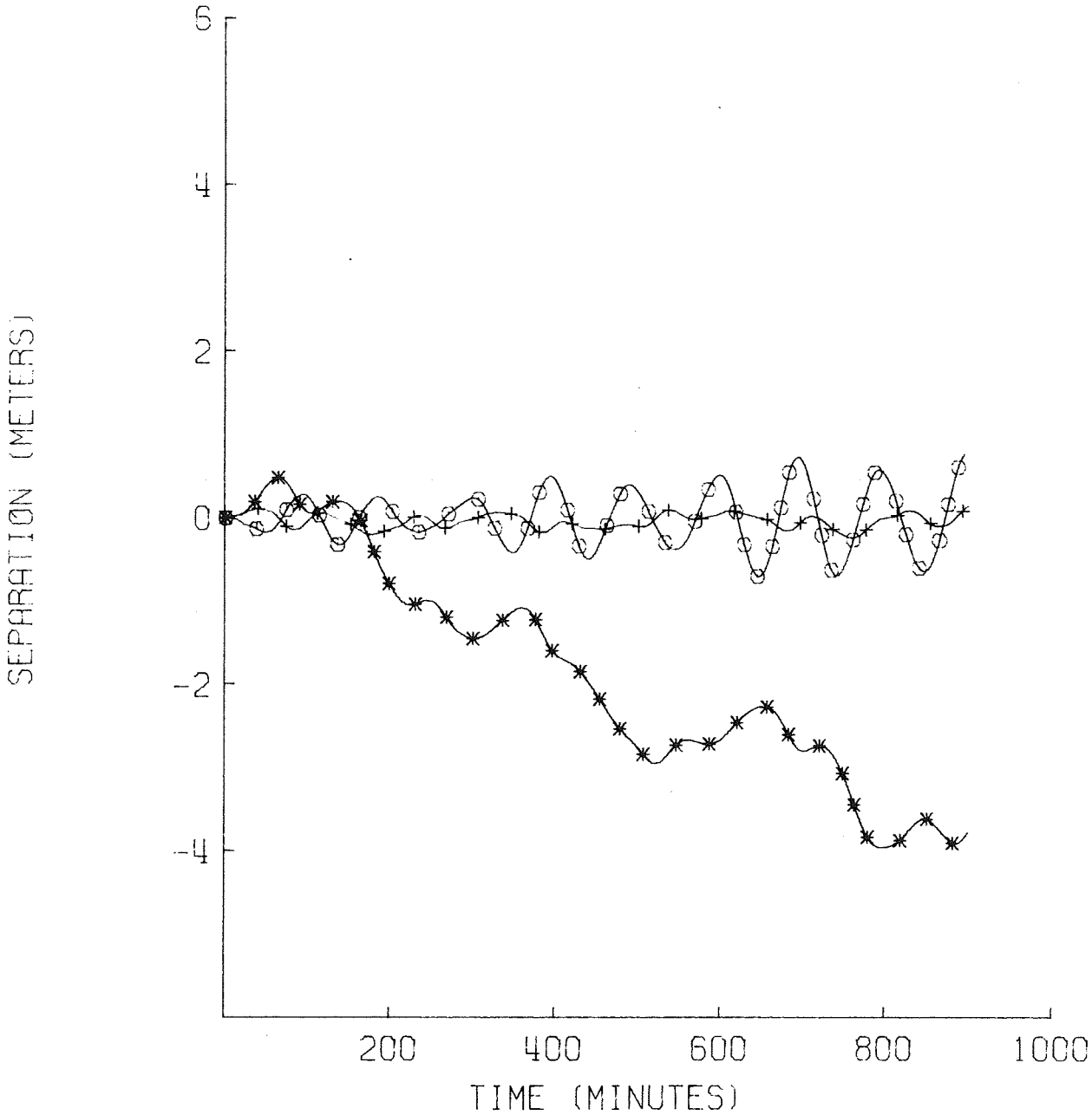
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊙) BI-NORMAL CROSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(10 ,5) = -.0083
FACTOR USED IS 1.000000

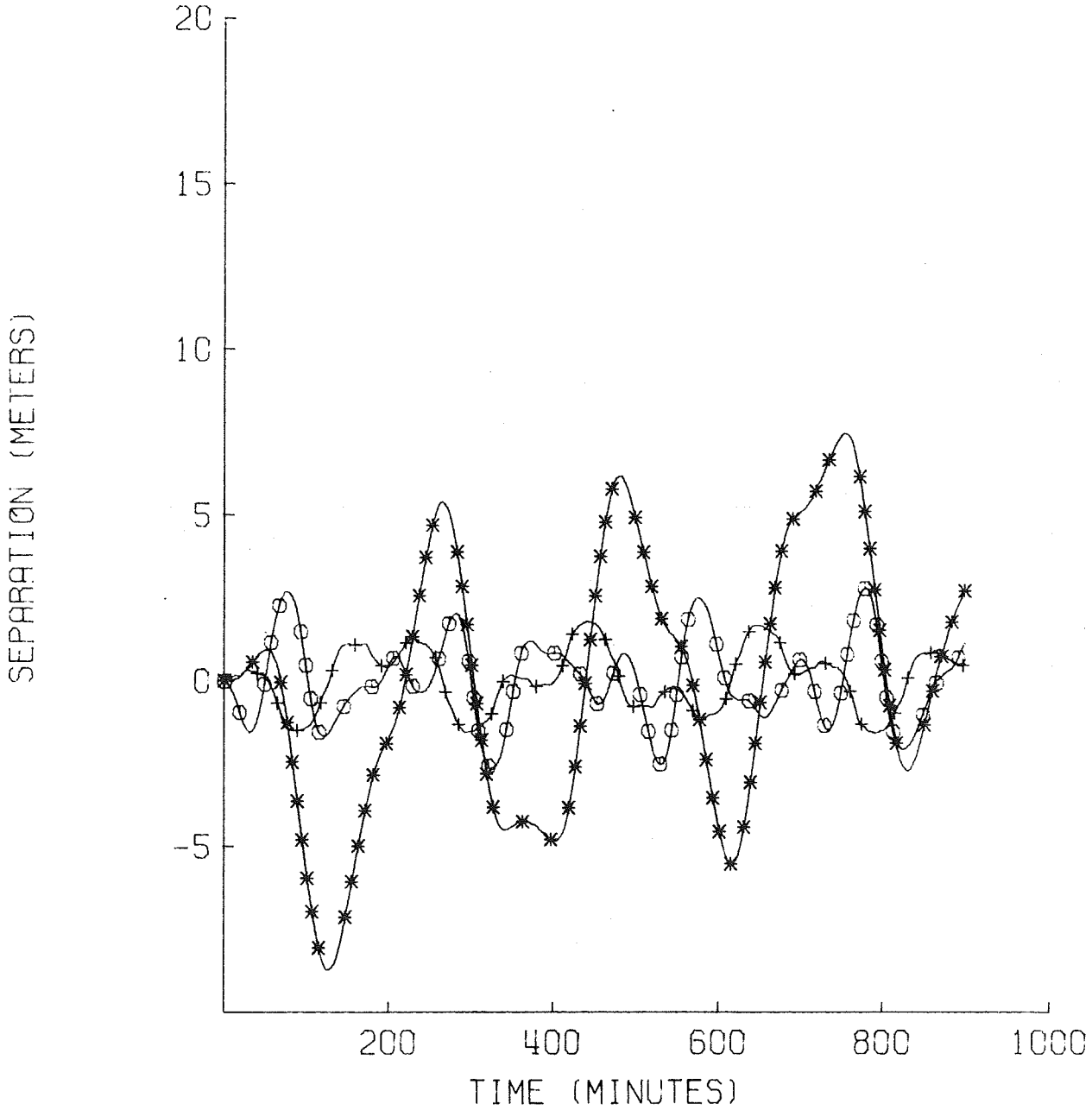
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(10 , 6) = -.0765
FACTOR USED IS 1.000000

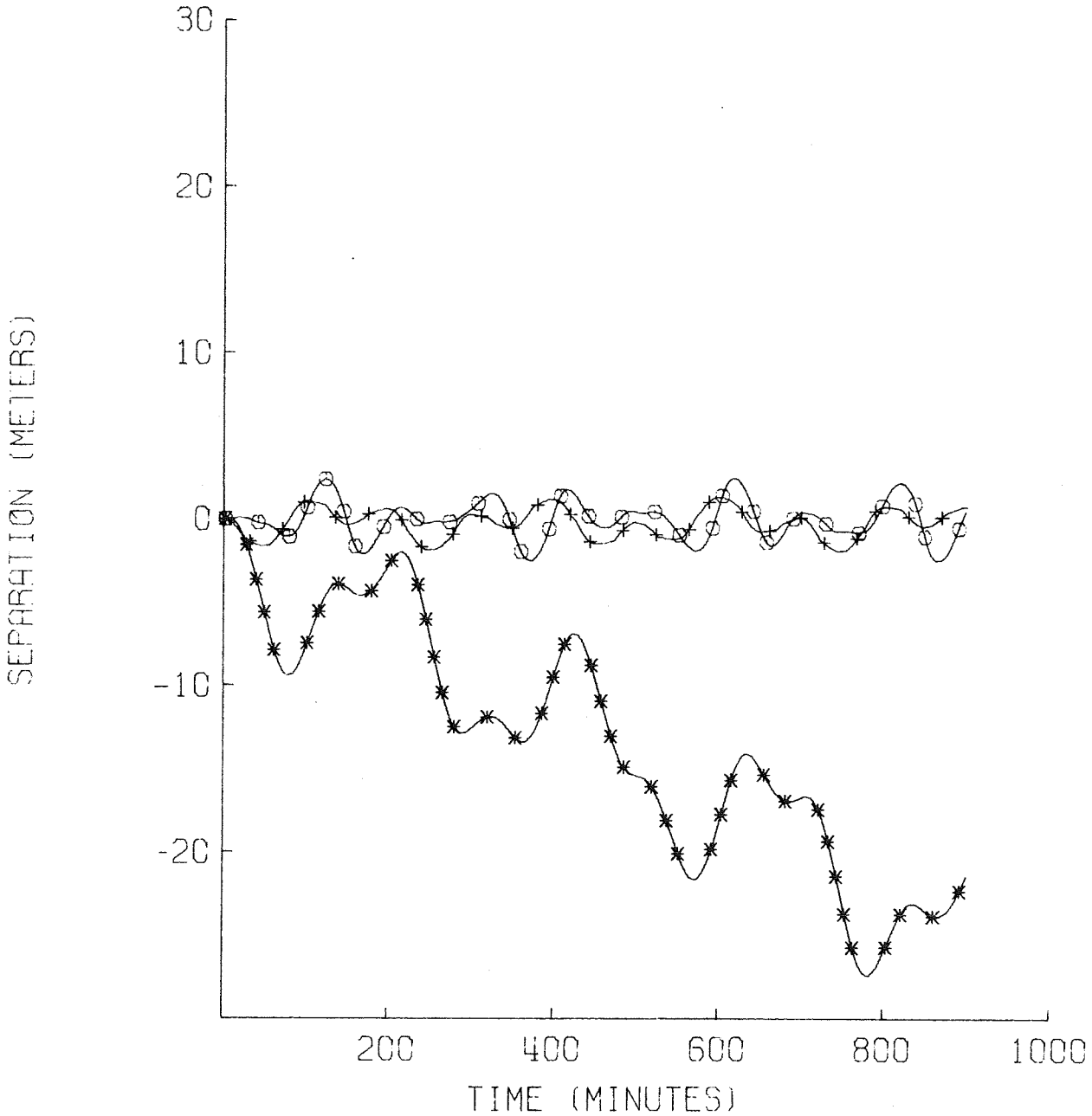
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊖) BI-NORMAL CROSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(10,6) = -.0576
FACTOR USED IS 1.000000

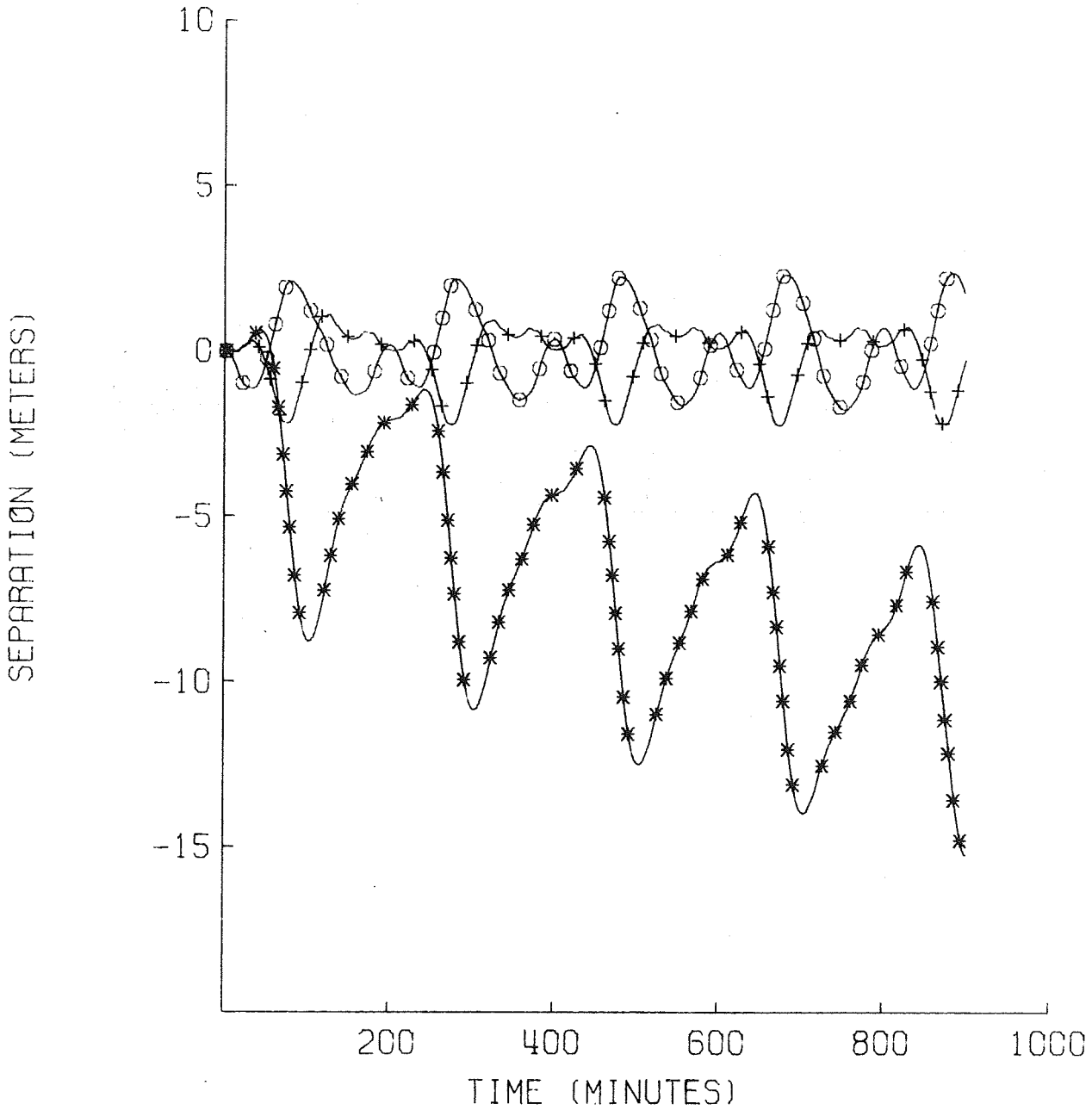
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊙) BI-NORMAL CROSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(10 ,7) = .0687
FACTOR USED IS 1.000000

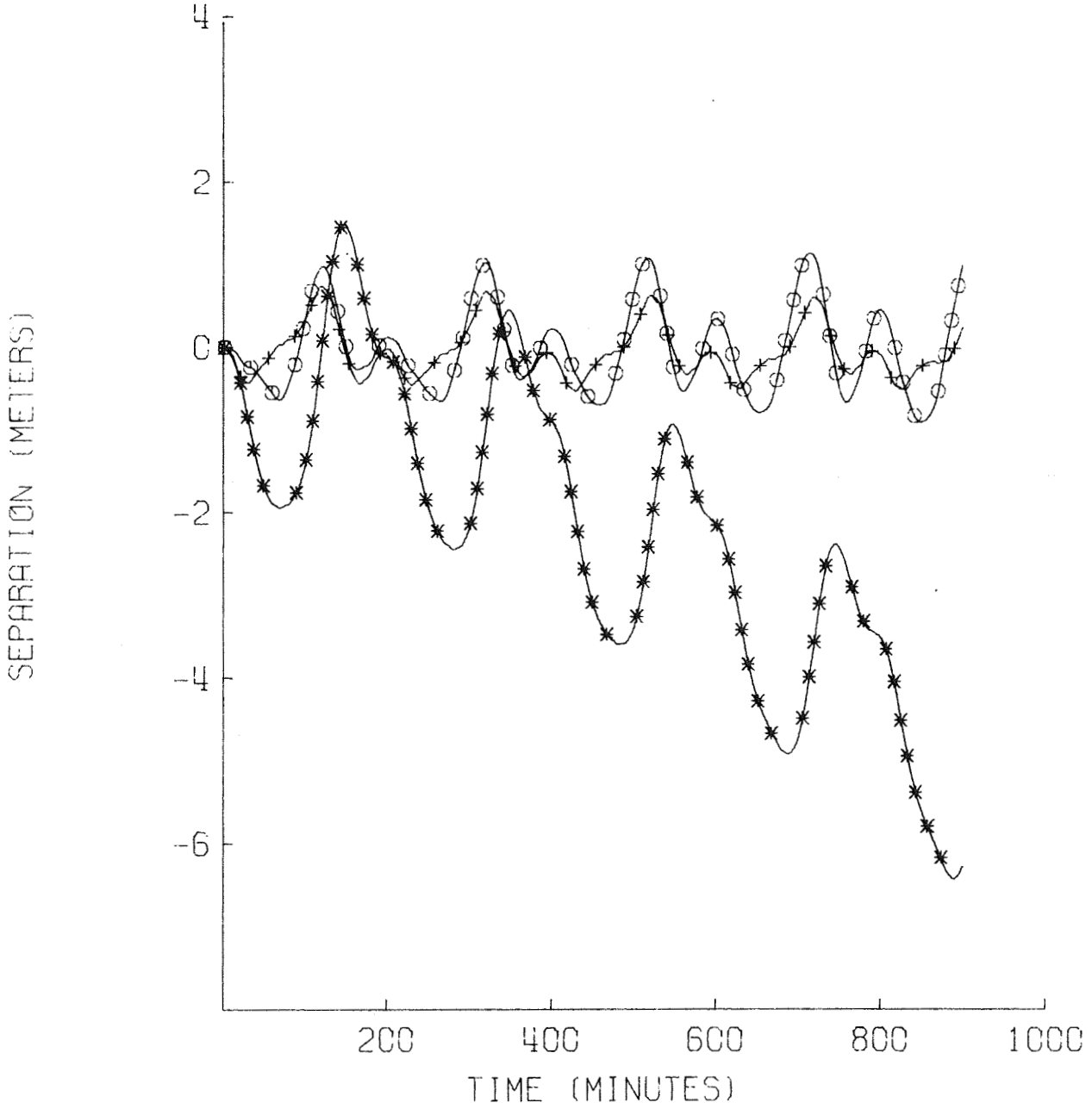
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(10 ,7) = .0264
FACTOR USED IS 1.000000

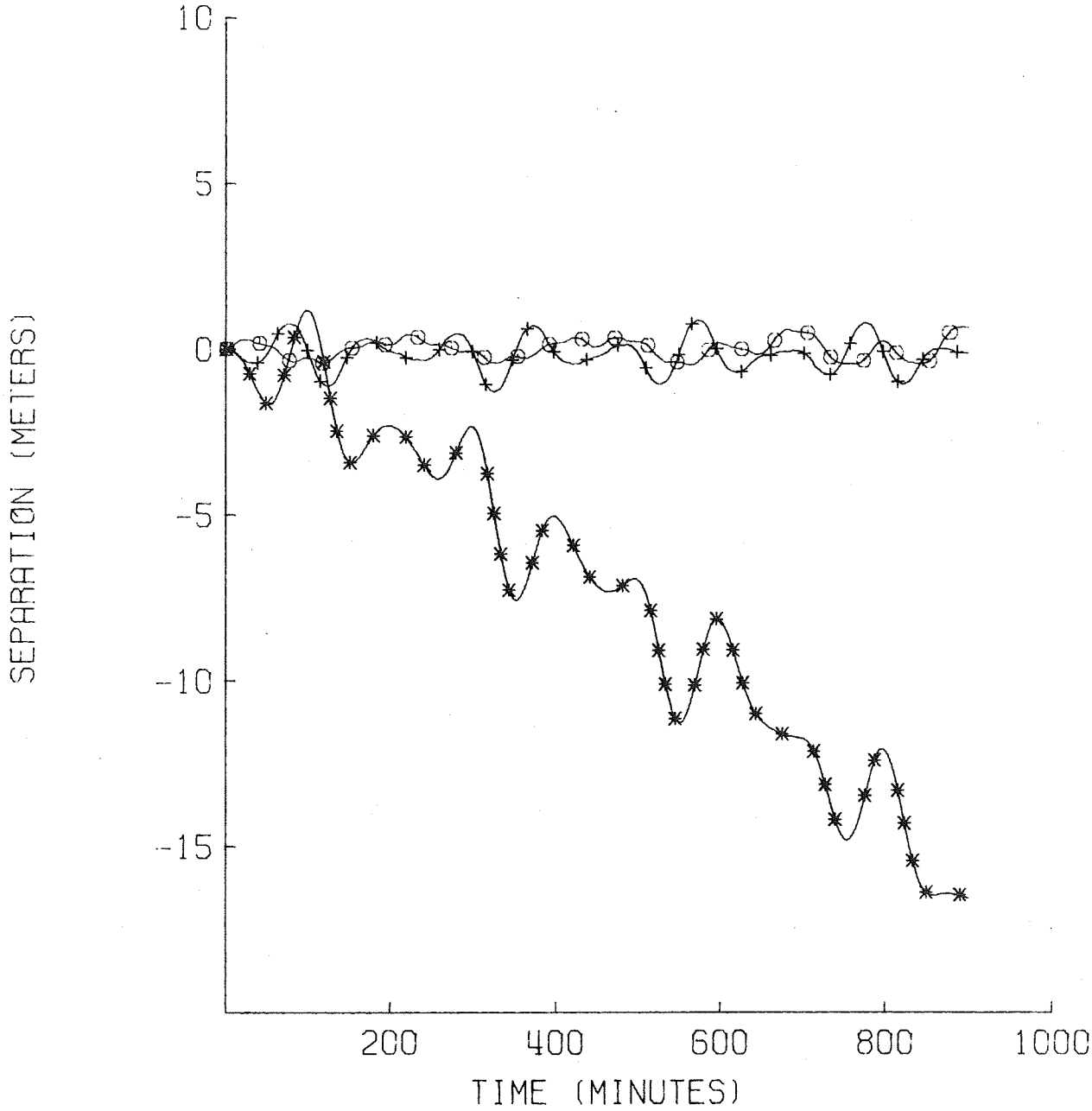
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊕) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(10 ,8) = .0278
FACTØR USED IS 1.000000

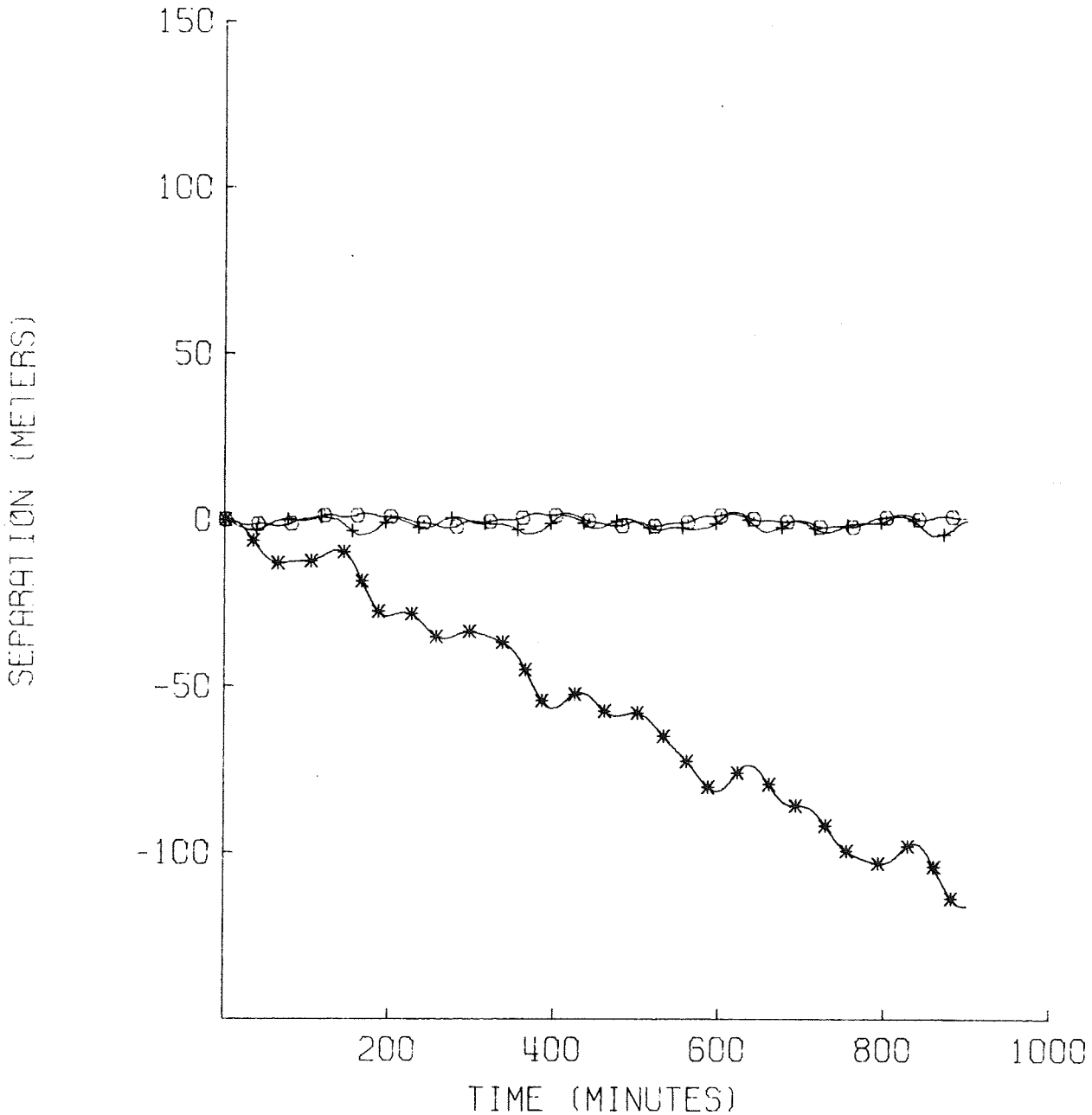
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(10 , 8) = -.1435
FACTOR USED IS 1.000000

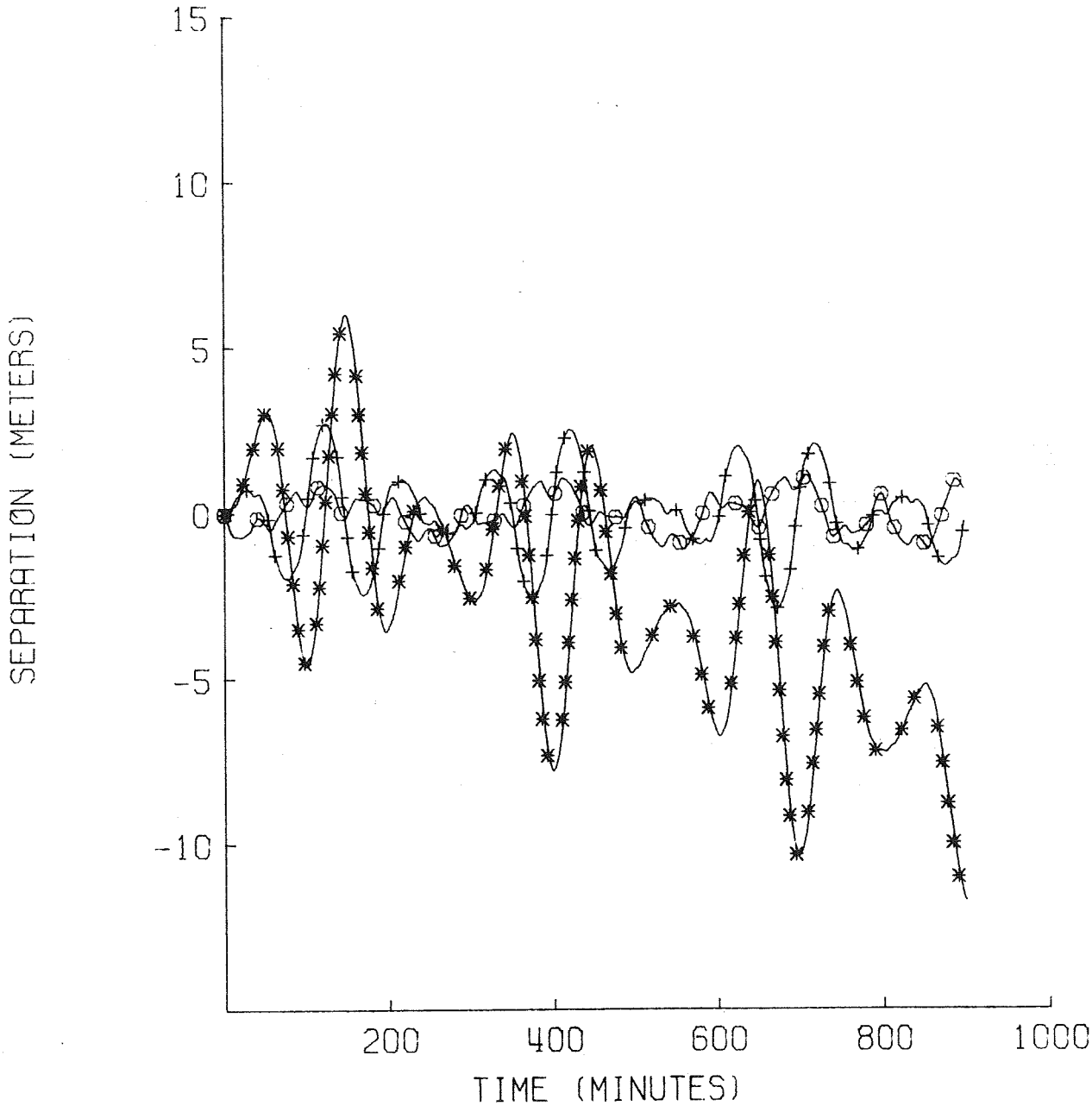
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊕) BI-NORMAL CROSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(10 , 9) = .1182
FACTOR USED IS 1.000000

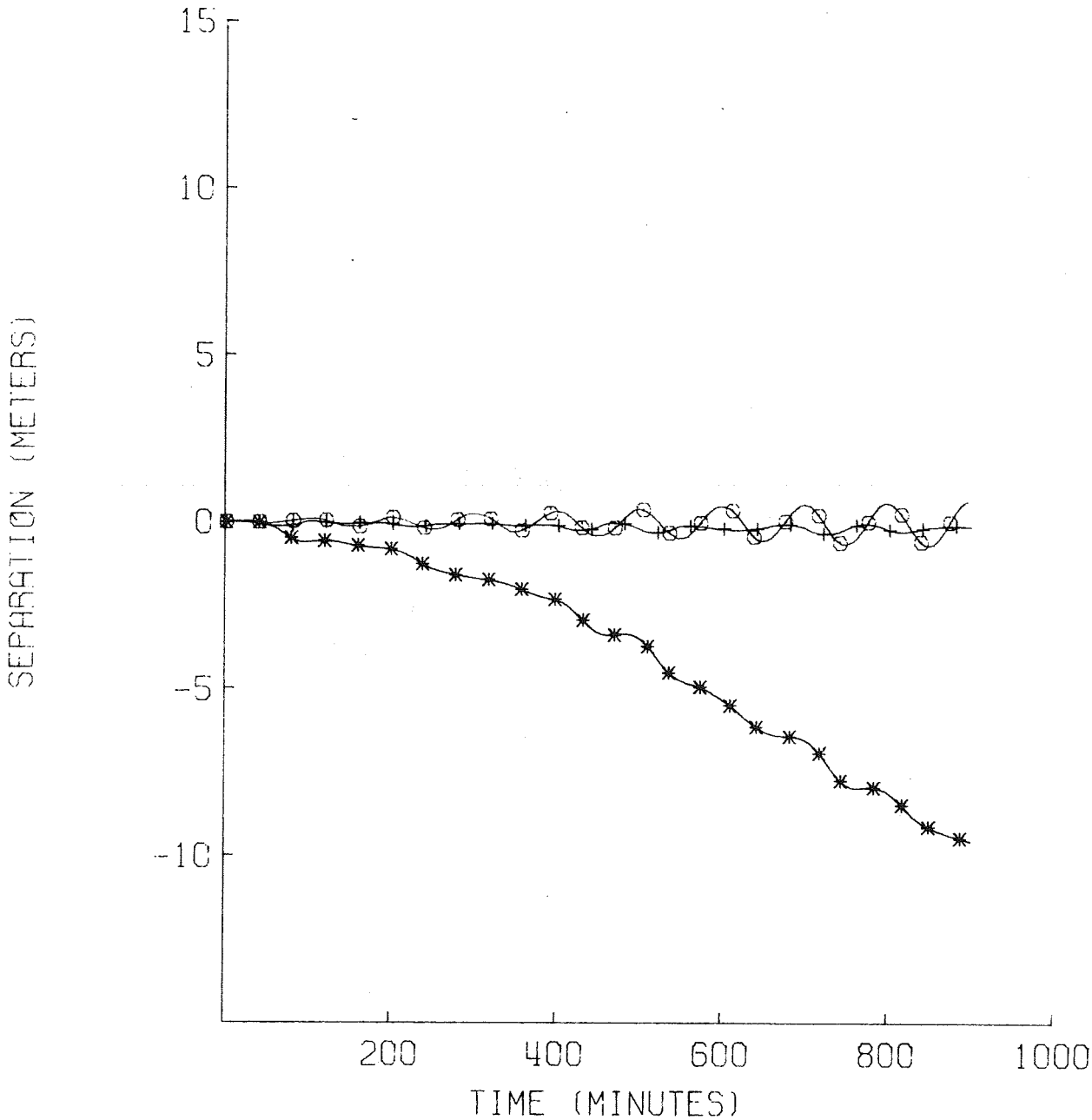
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊙) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(10 ,9) = -.0051
FACTØR USED IS 1.000000

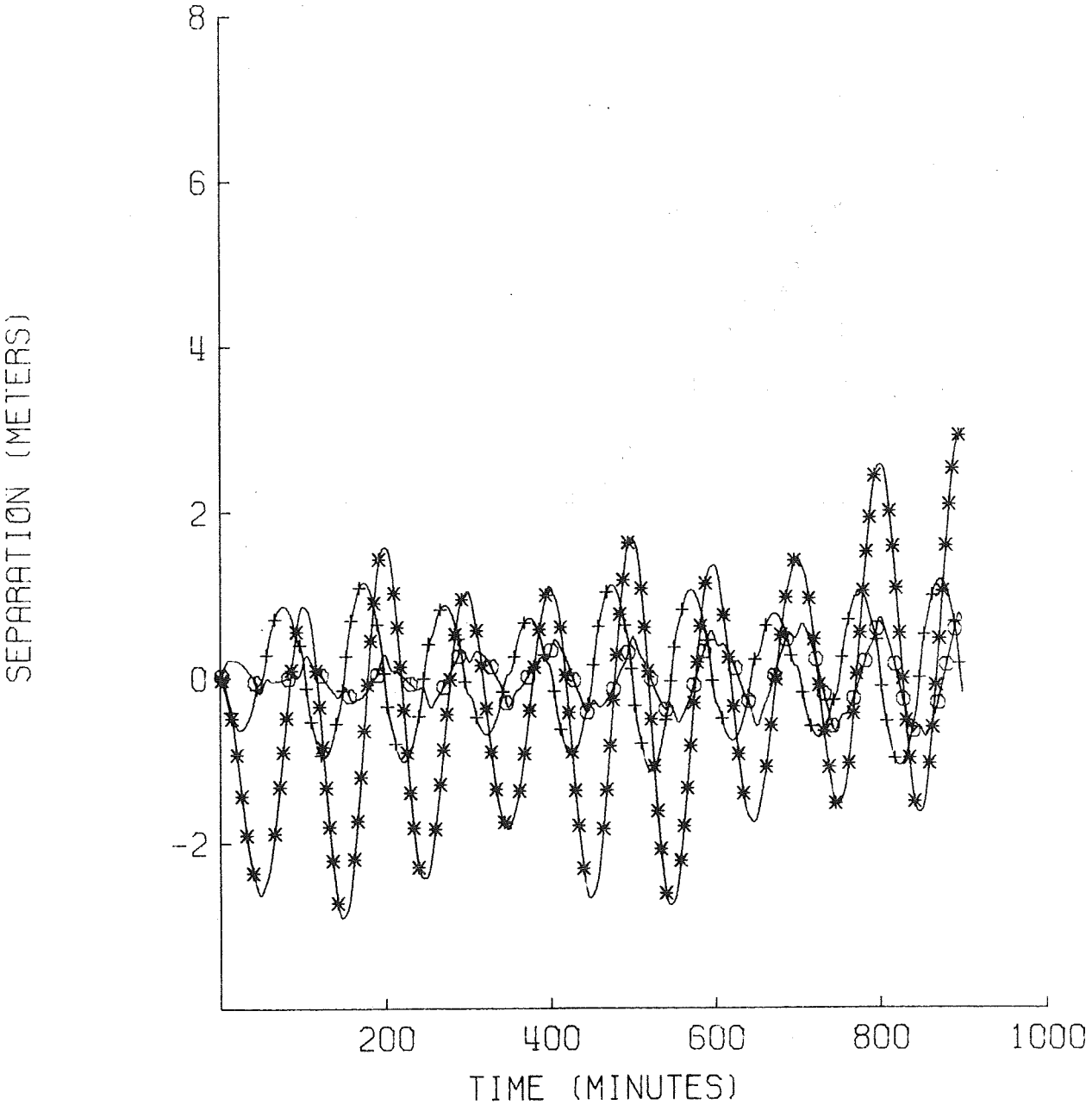
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊕) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(10 , 10) = .0653
FACTØR USED IS 1.000000

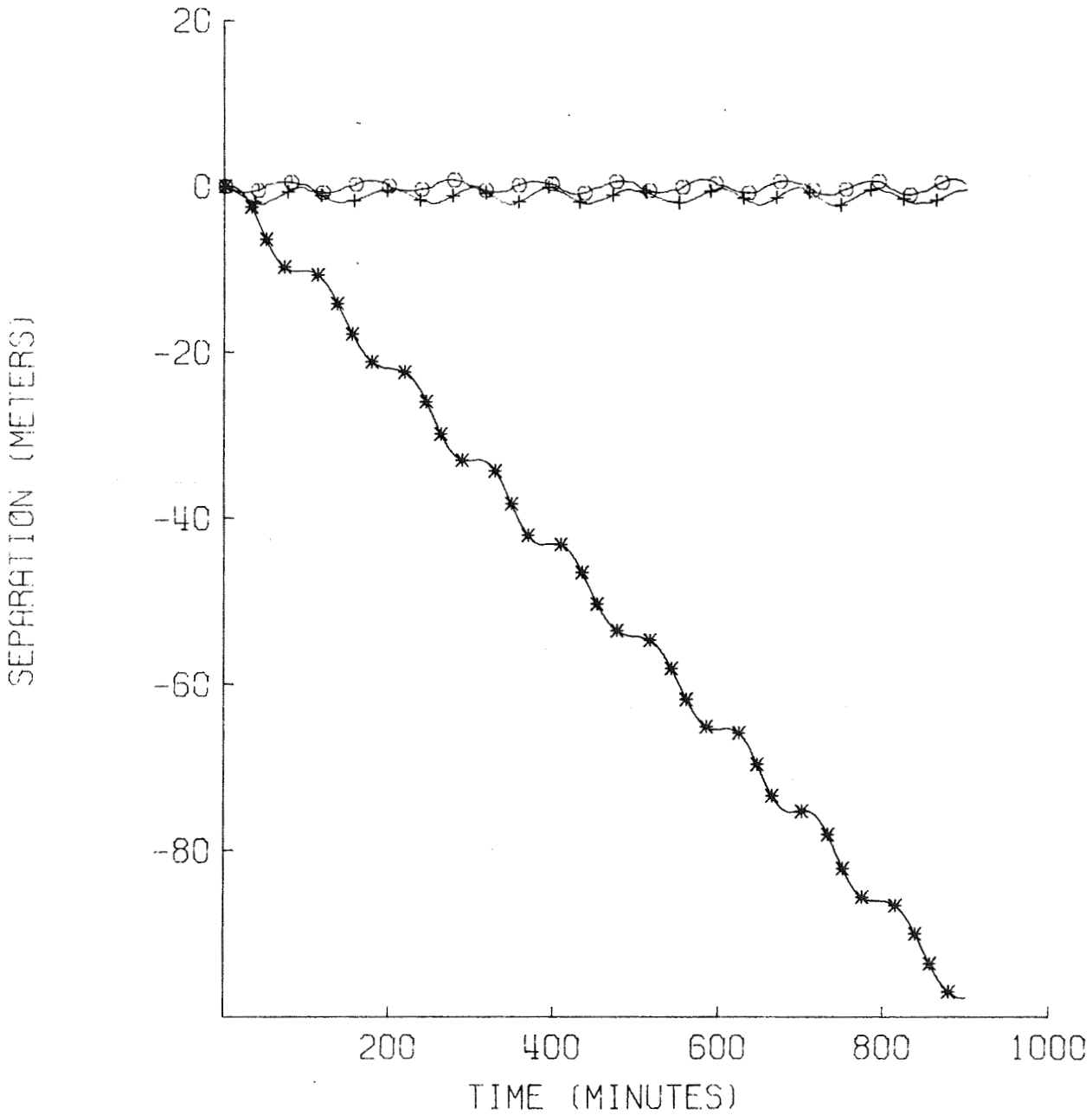
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(10 , 10) = -.0729
FACTOR USED IS 1.000000

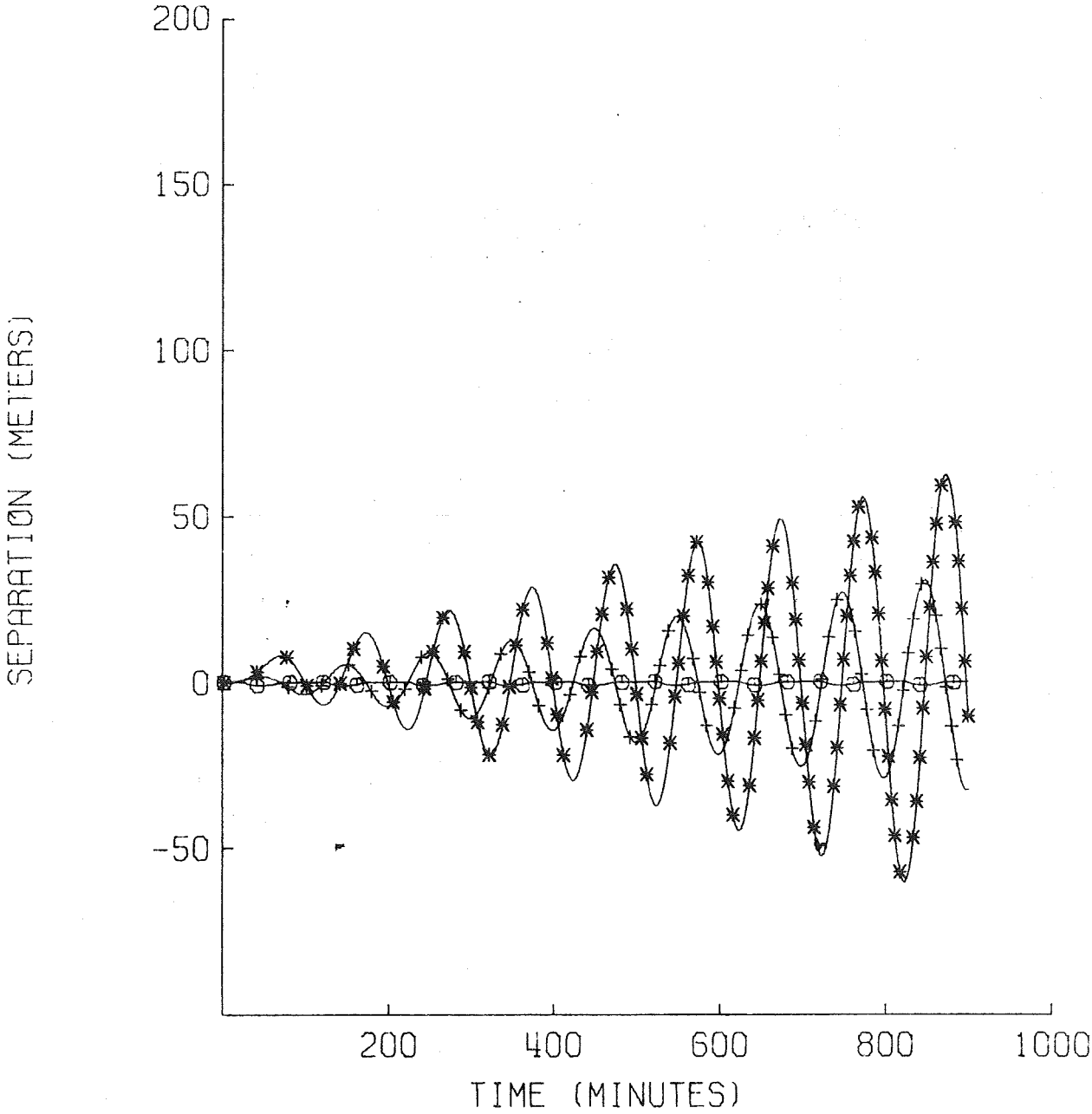
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊕) BI-NORMAL CROSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(11 ,0) = -.0949
FACTOR USED IS 1.000000

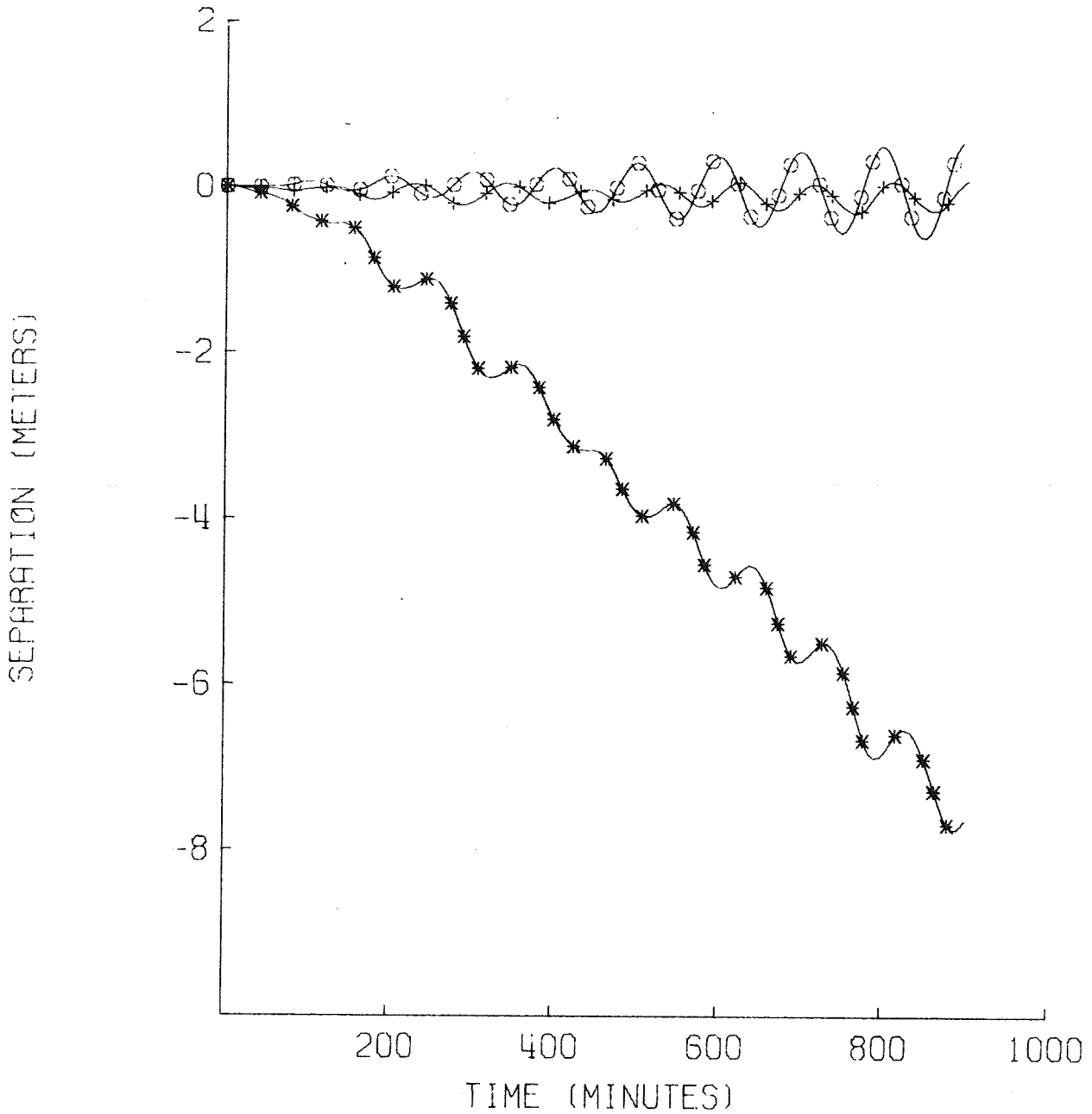
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊕) BI-NORMAL CROSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(11 ,1) = .0042
FACTOR USED IS 1.000000

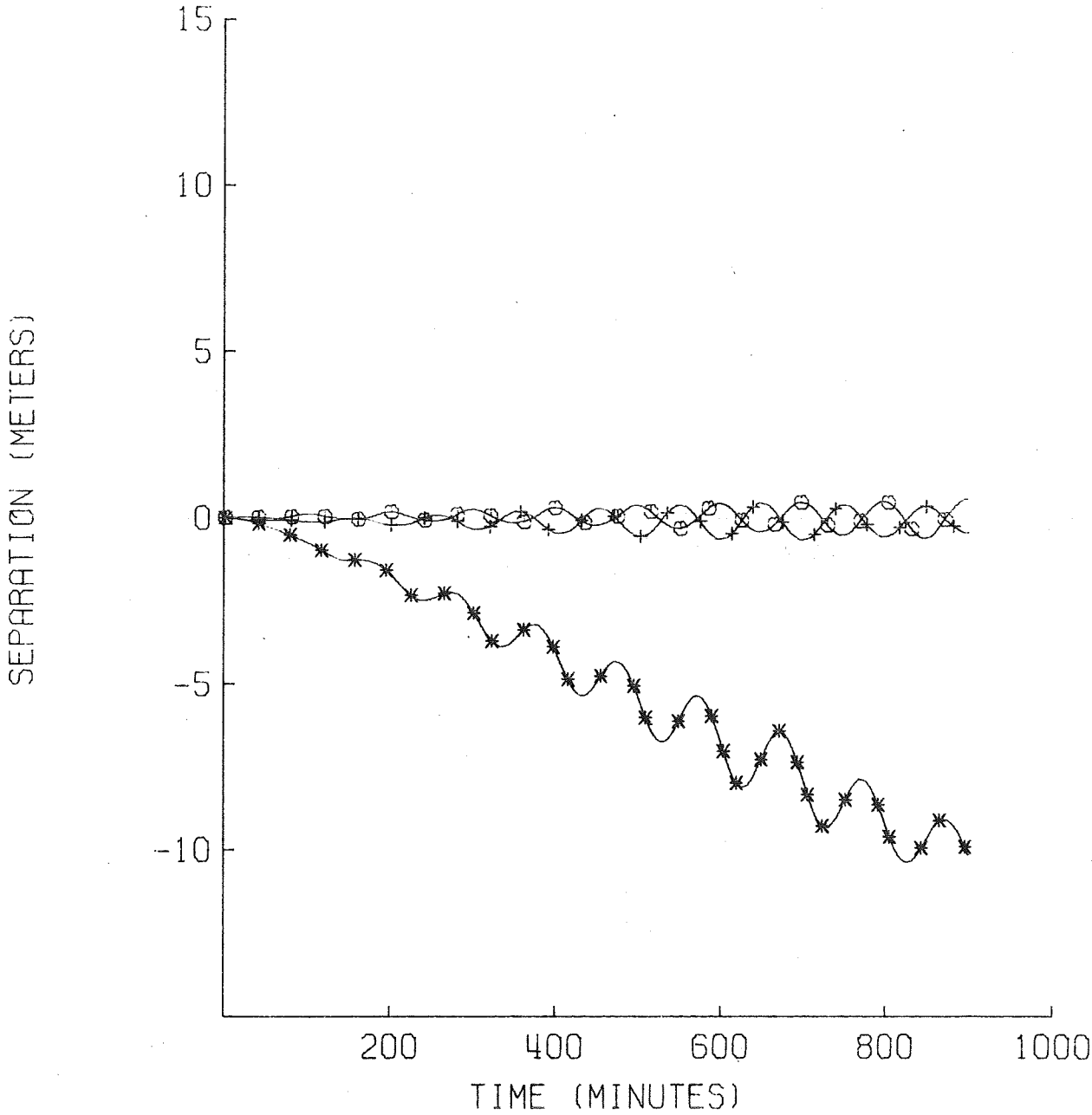
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊙) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(11 ,1) = -.0121
FACTØR USED IS 1.000000

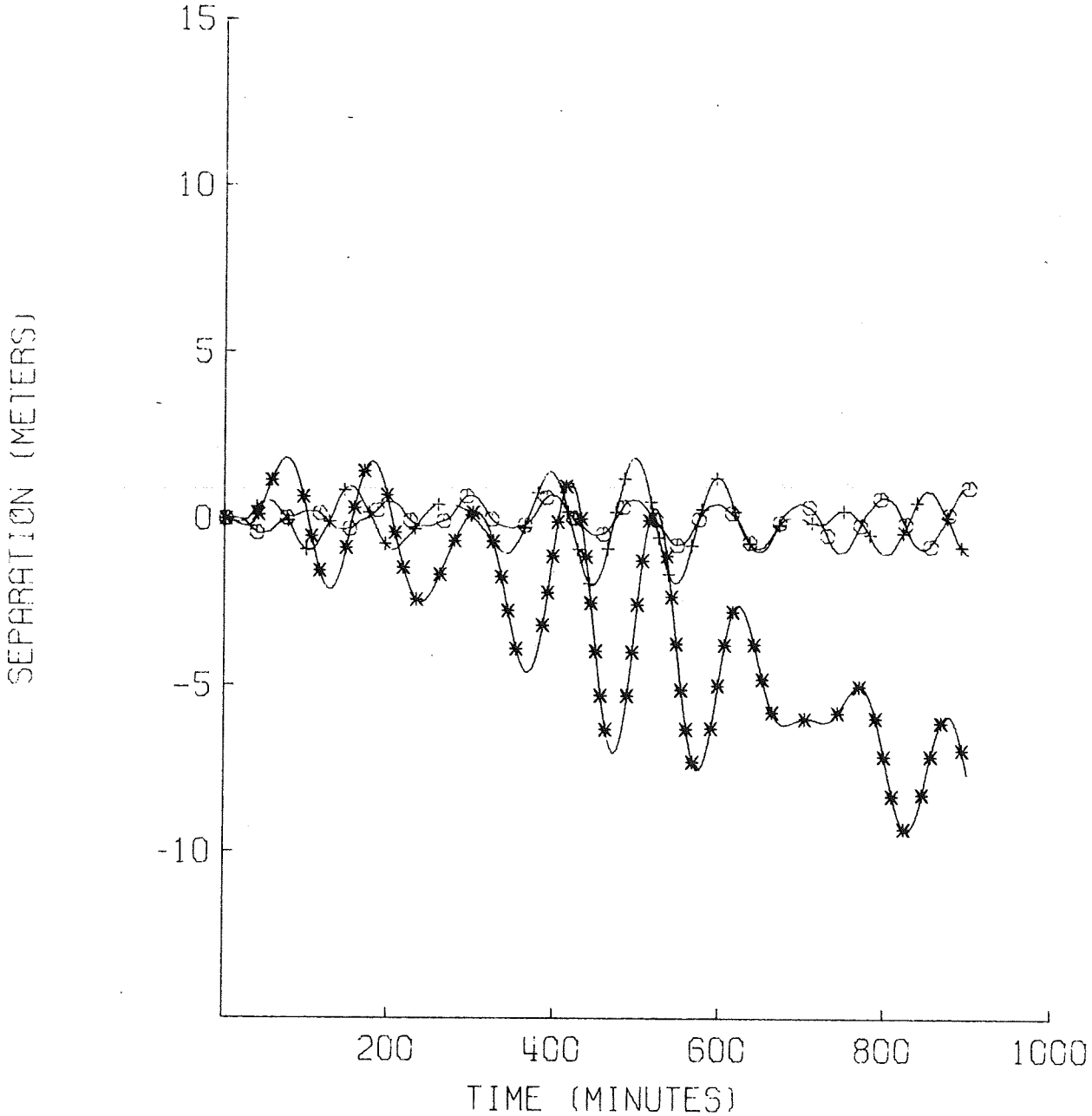
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊕) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(11 ,2) = .0585
FACTOR USED IS 1.000000

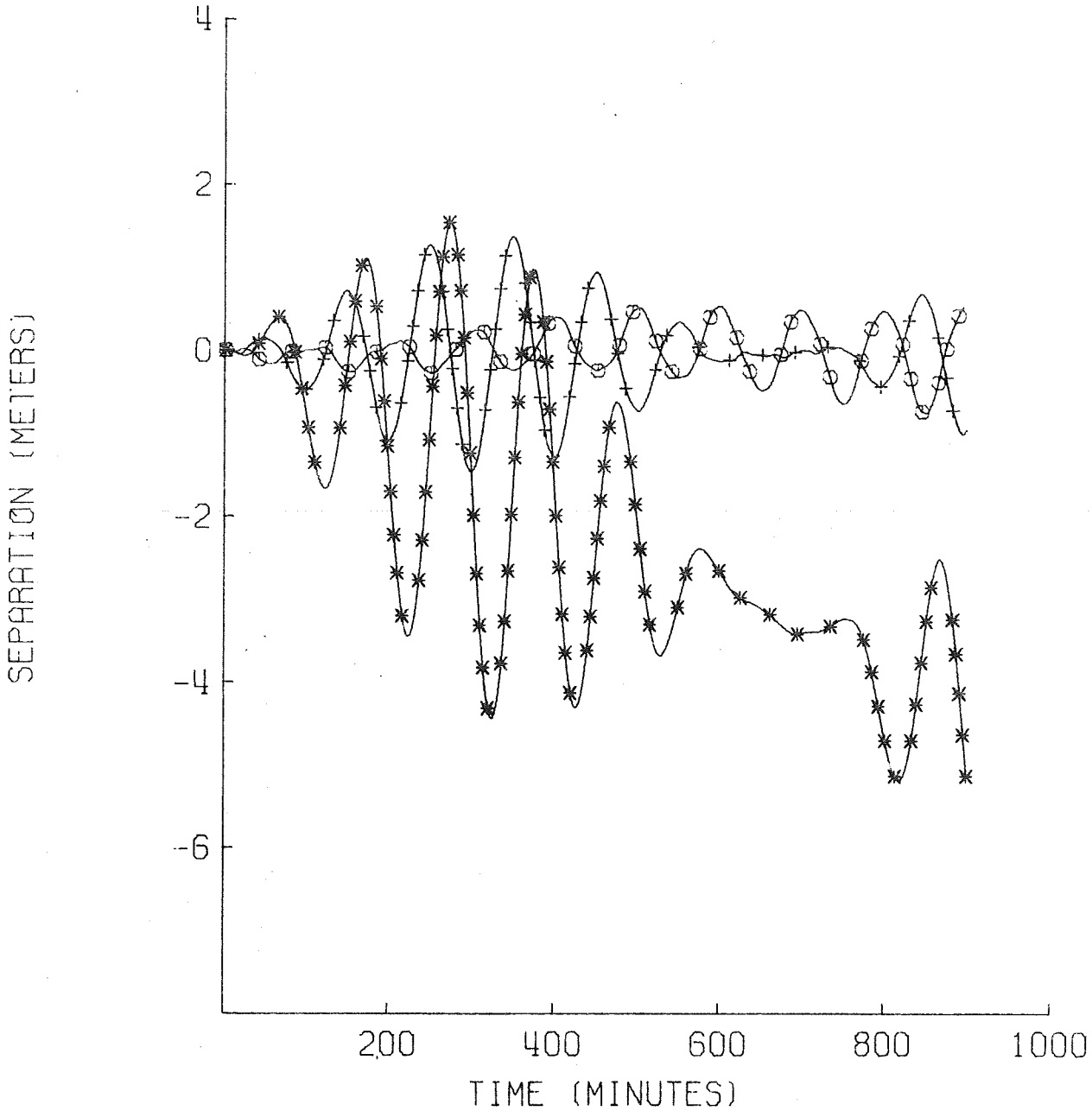
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊙) BI-NORMAL CROSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(11 ,2) = -.0287
FACTOR USED IS 1.000000

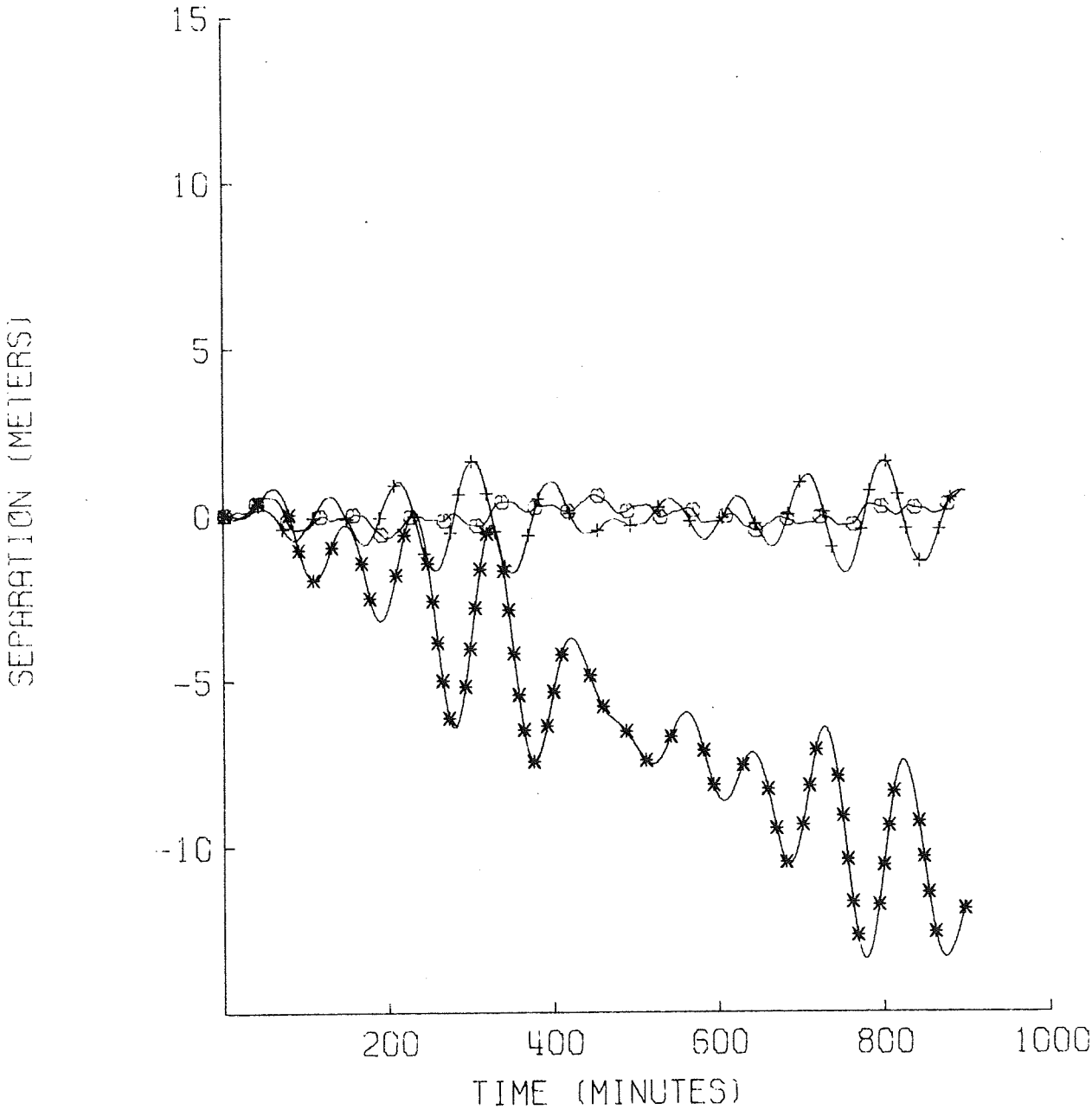
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊙) BI-NORMAL CROSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(11,3) = -.0655
FACTOR USED IS 1.000000

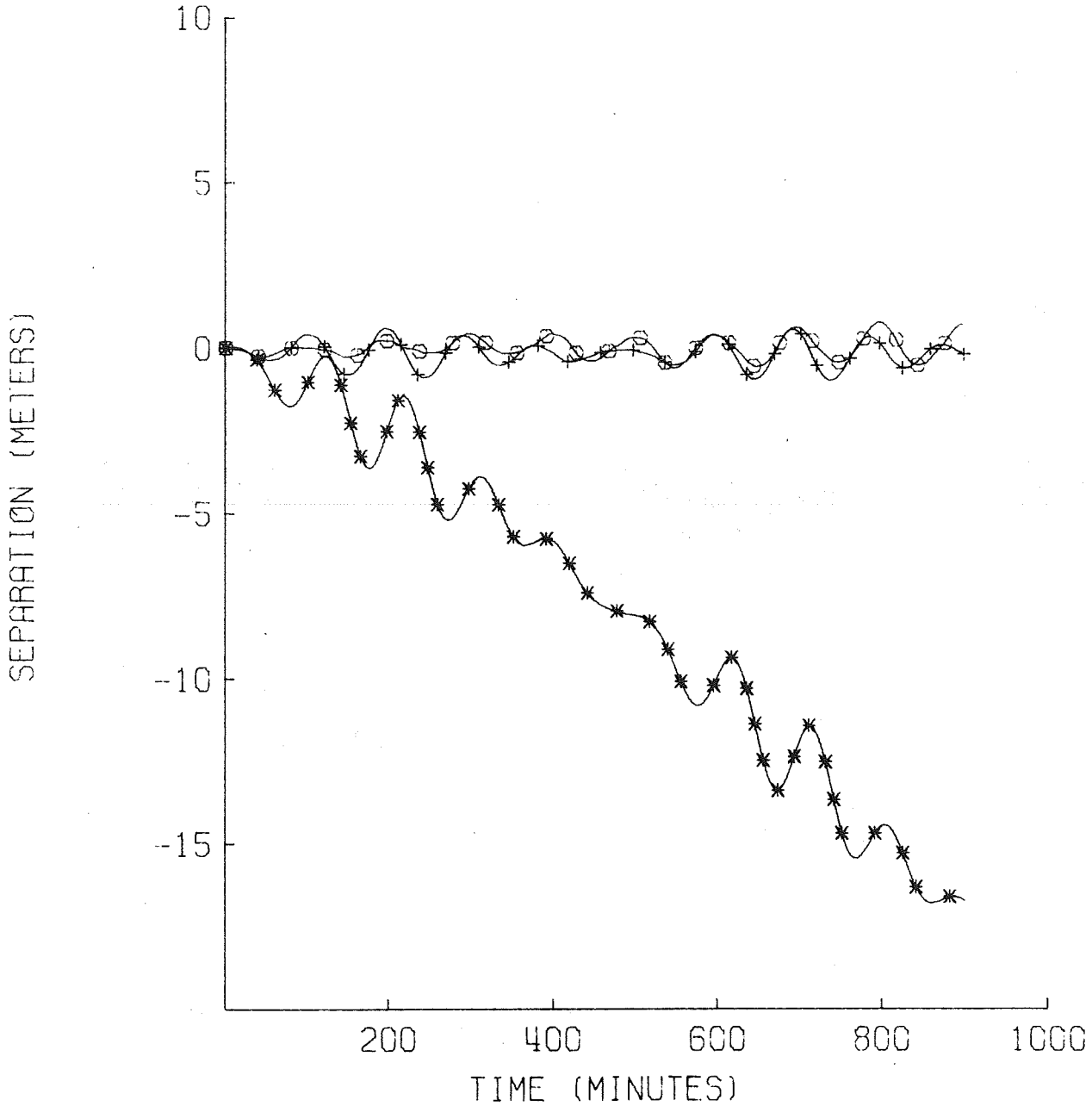
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊖) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(11 , 3) = -.0223
FACTØR USED IS 1.000000

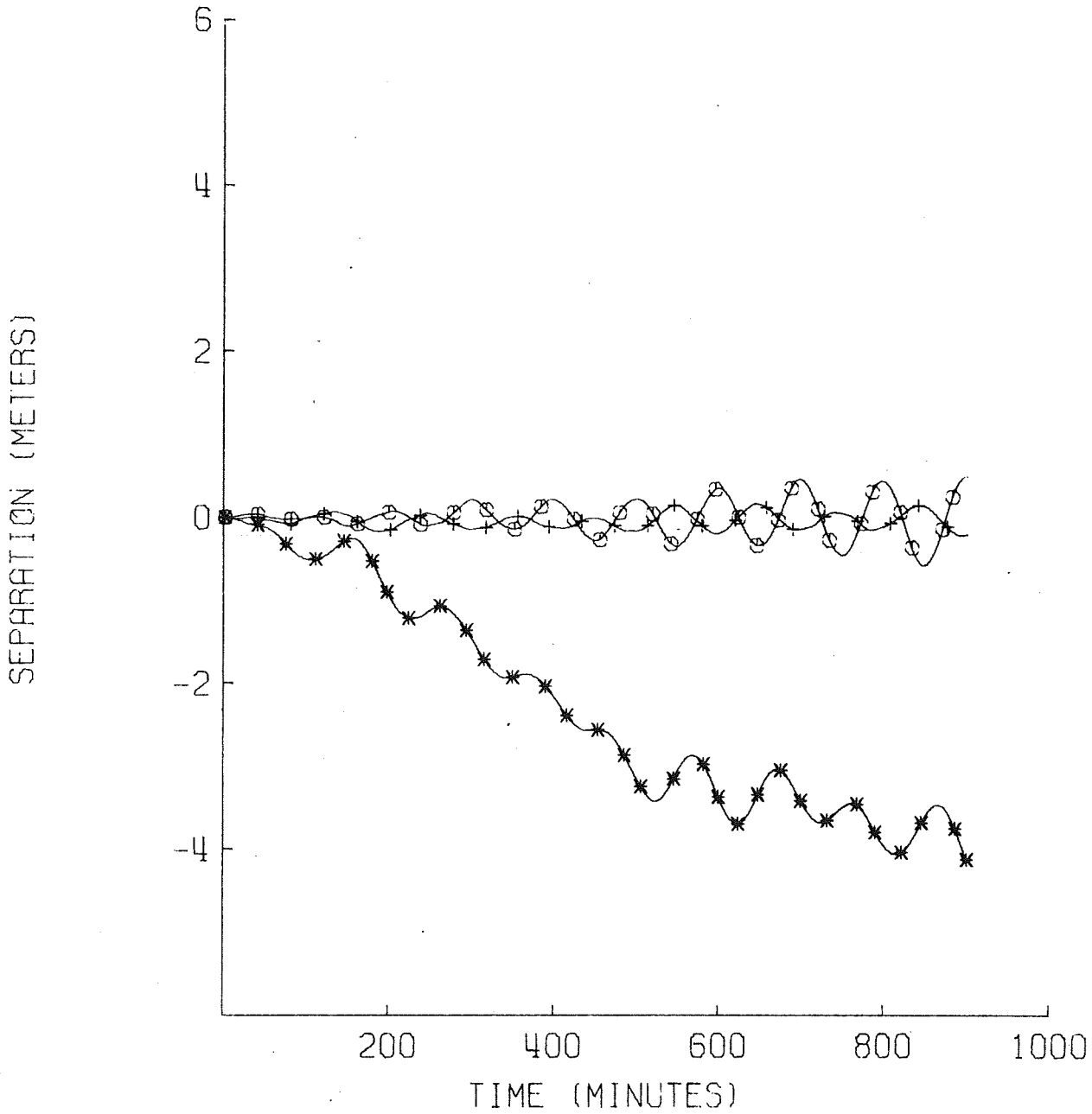
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊕) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(11 ,4) = .0057
FACTØR USED IS 1.000000

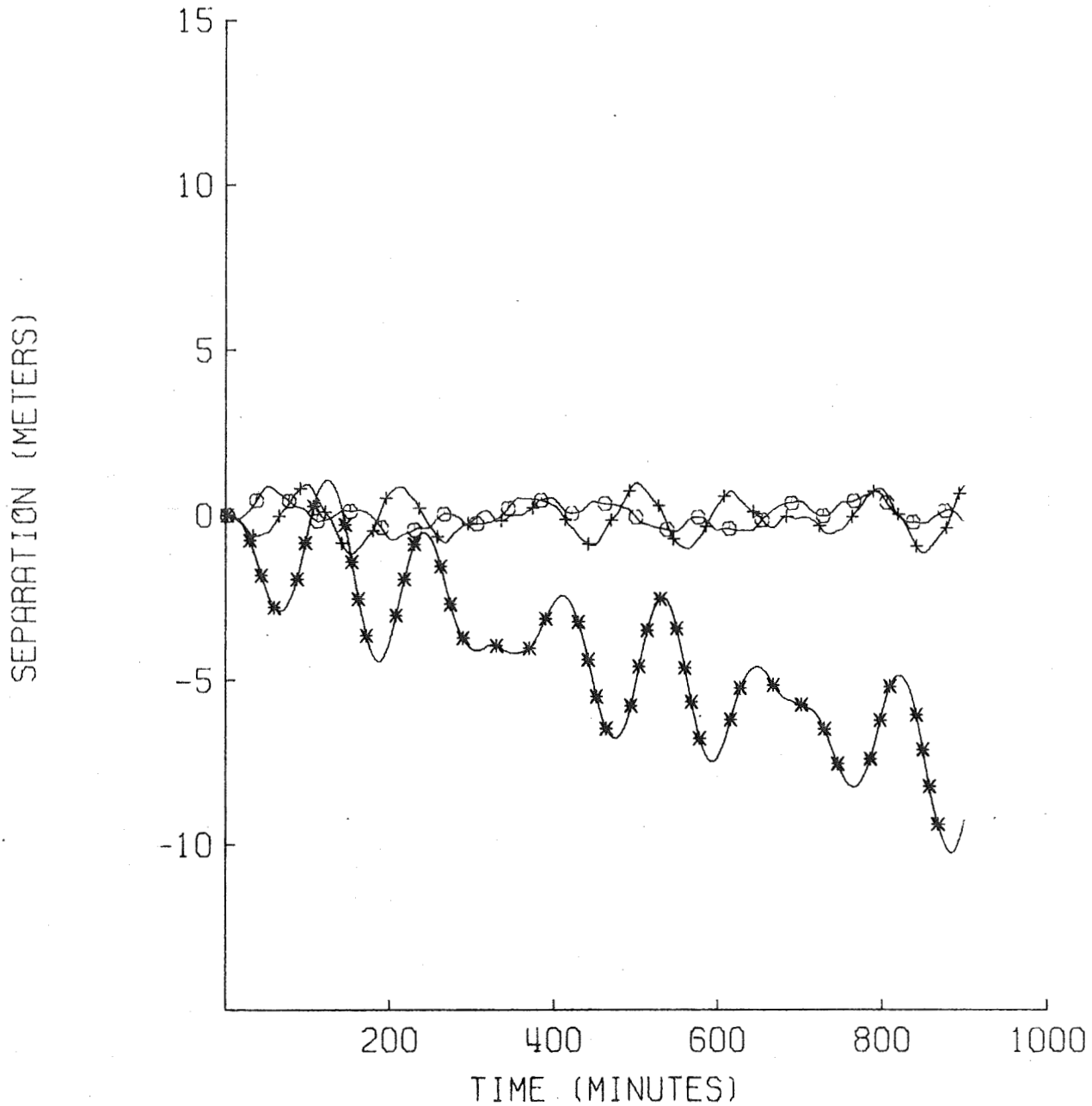
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⦶) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(11 ,4) = -.0574
FACTØR USED IS 1.000000

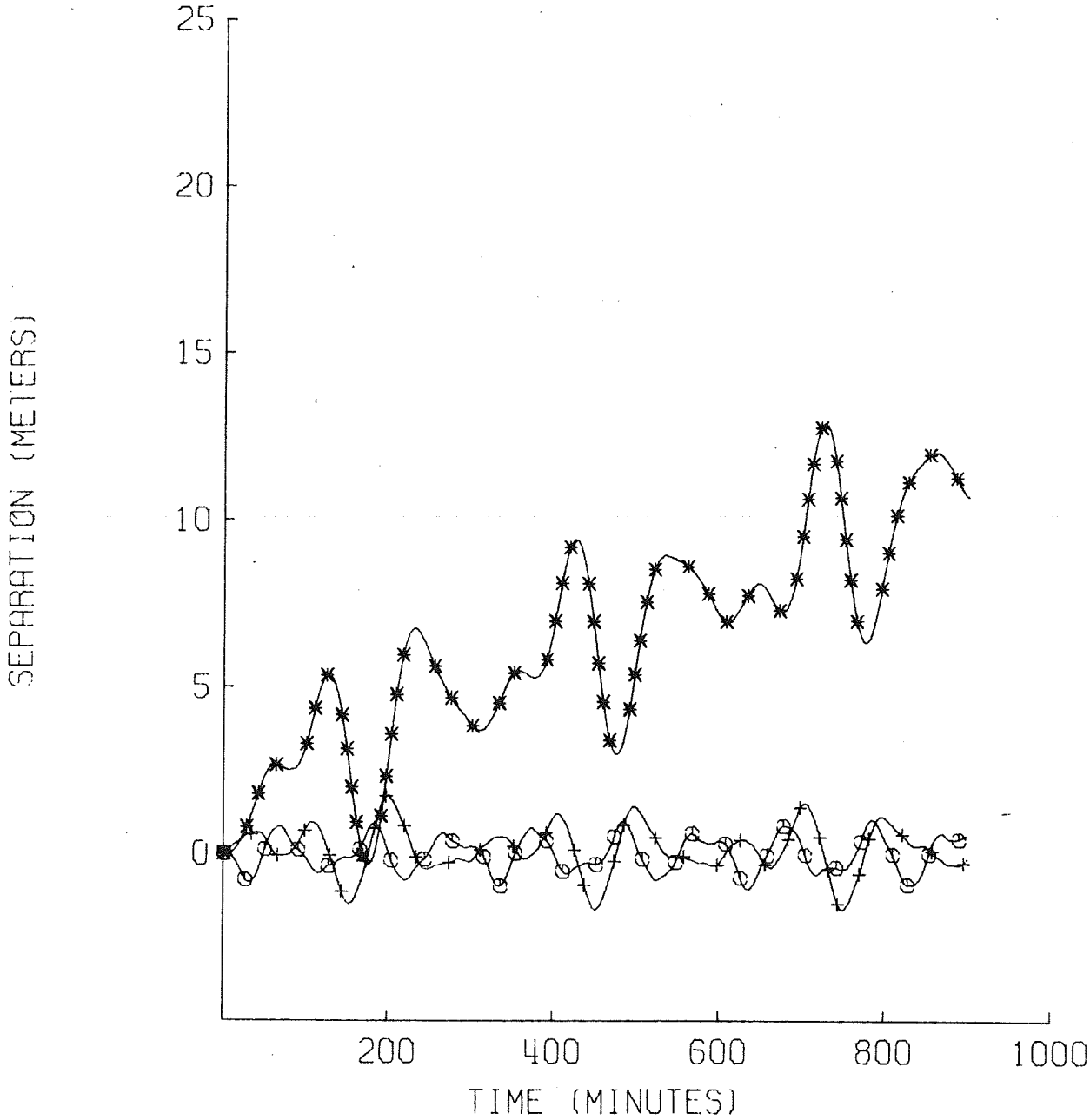
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(11 , 5) = .0647
FACTØR USED IS 1.000000

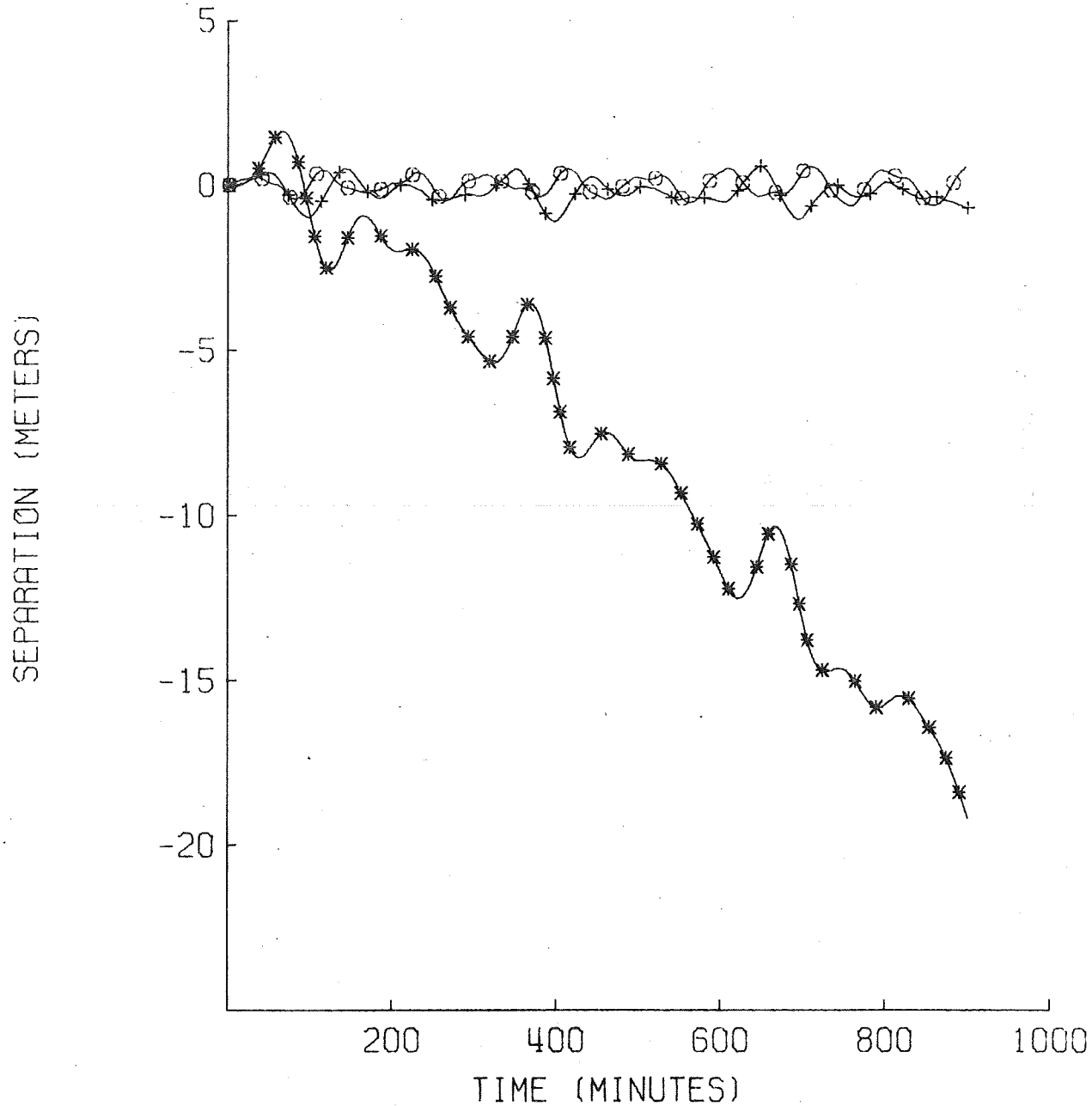
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(11 ,5) = -.0346
FACTOR USED IS 1.000000

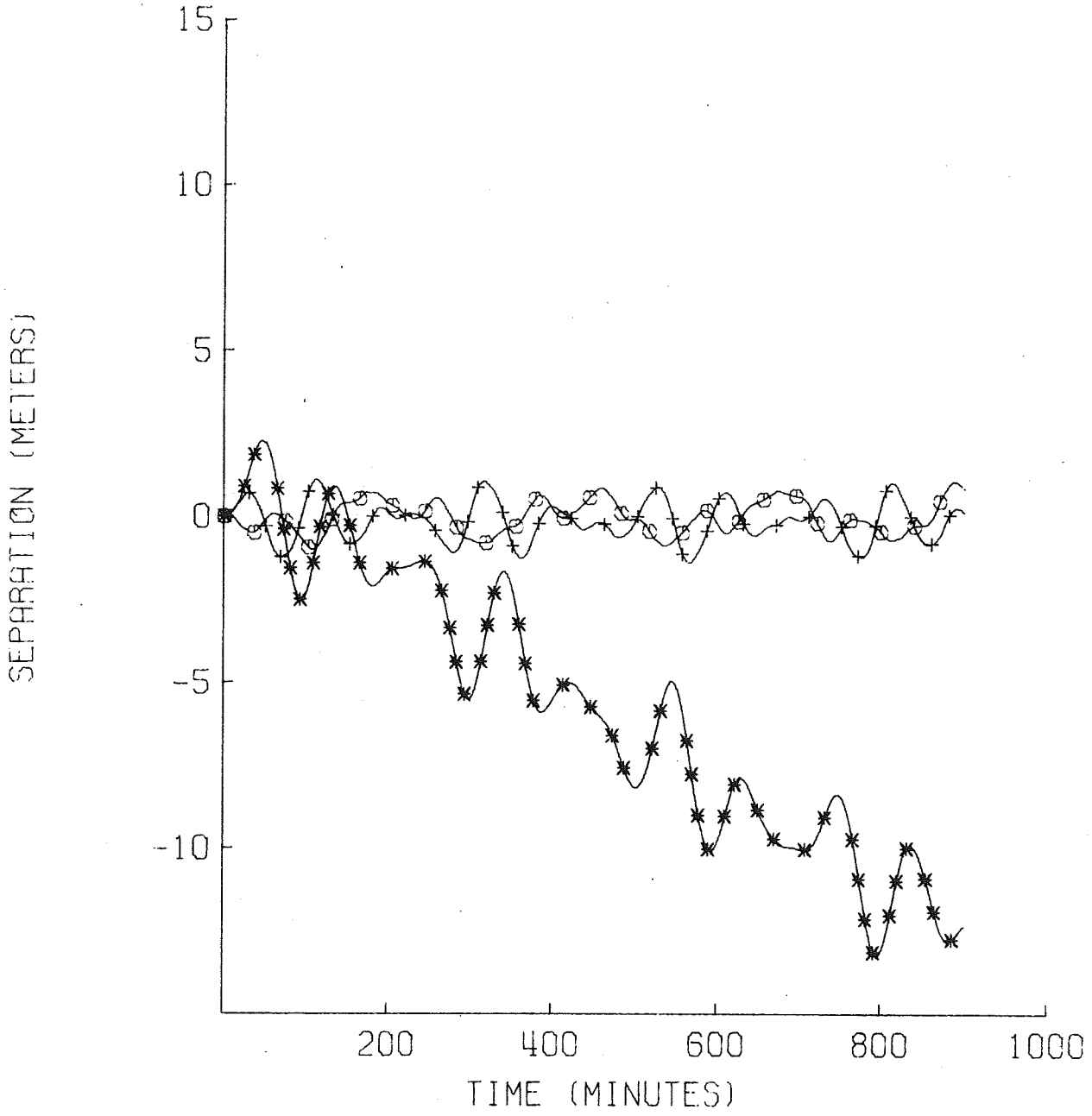
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊘) BI-NORMAL CROSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(11 ,6) = -.0530
FACTOR USED IS 1.000000

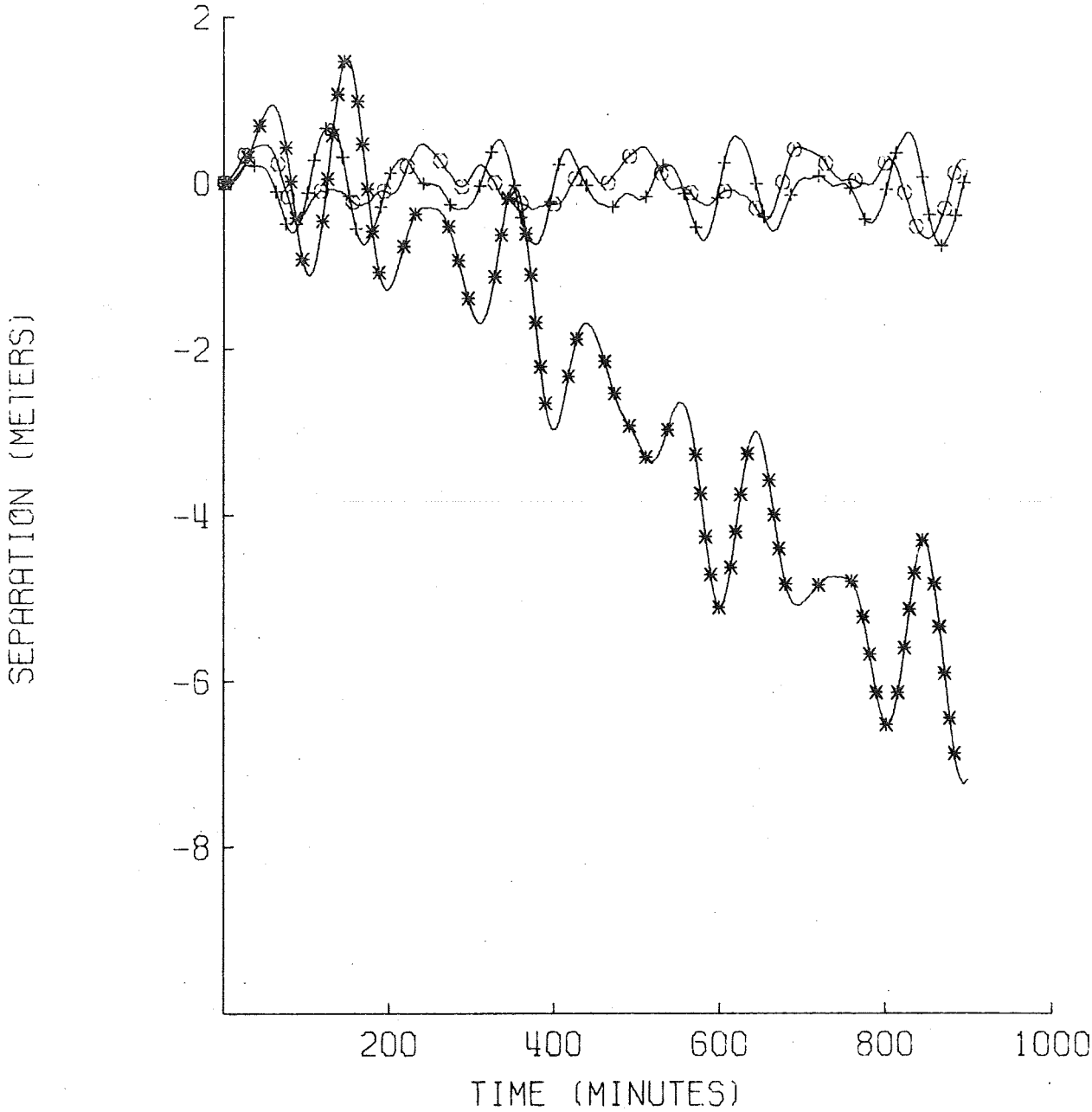
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊙) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.0535

RUN FØR S(11 ,6) = .0262
FACTØR USED IS 1.000000

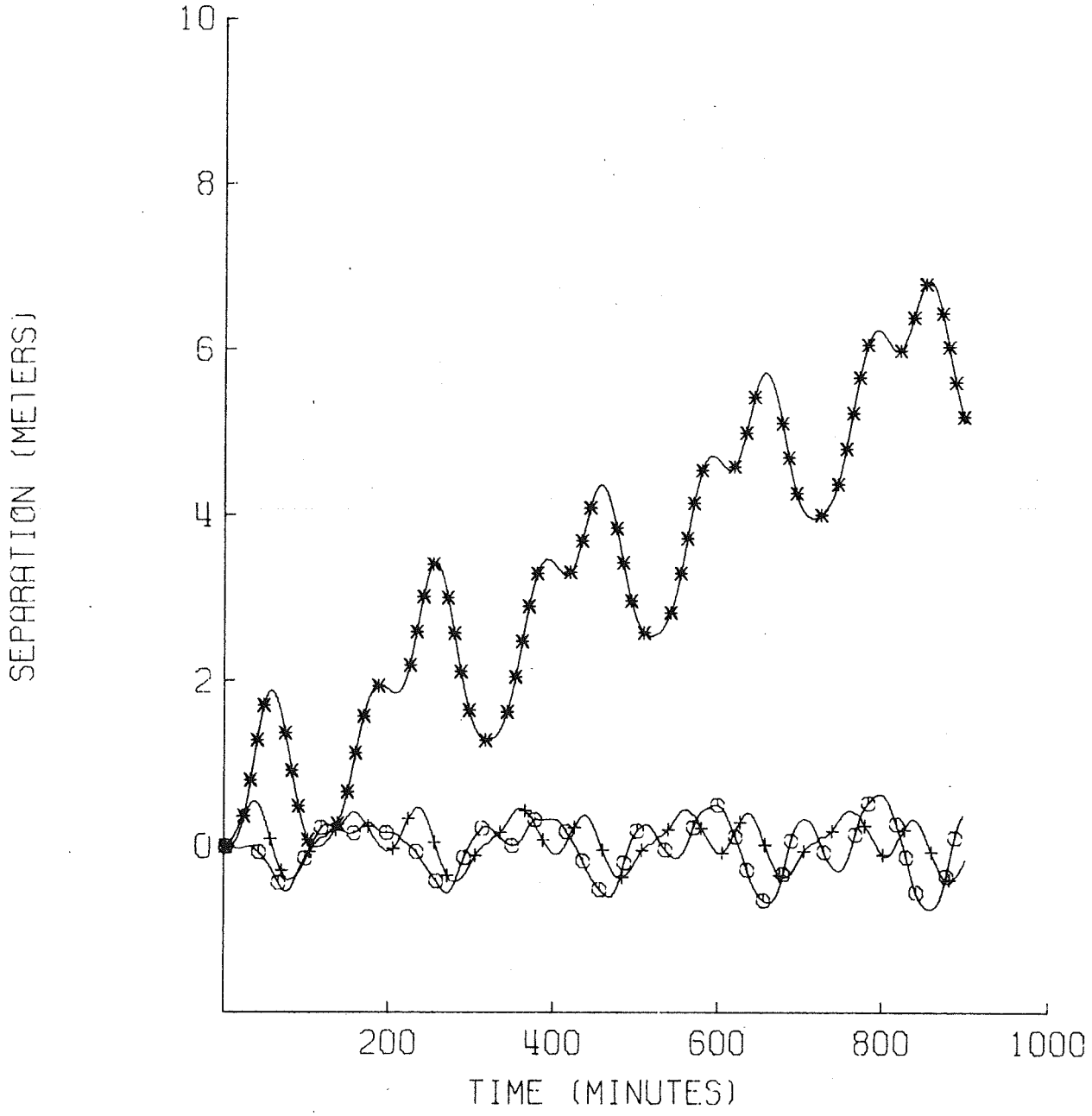
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊕) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(11 ,7) = .0218
FACTOR USED IS 1.000000

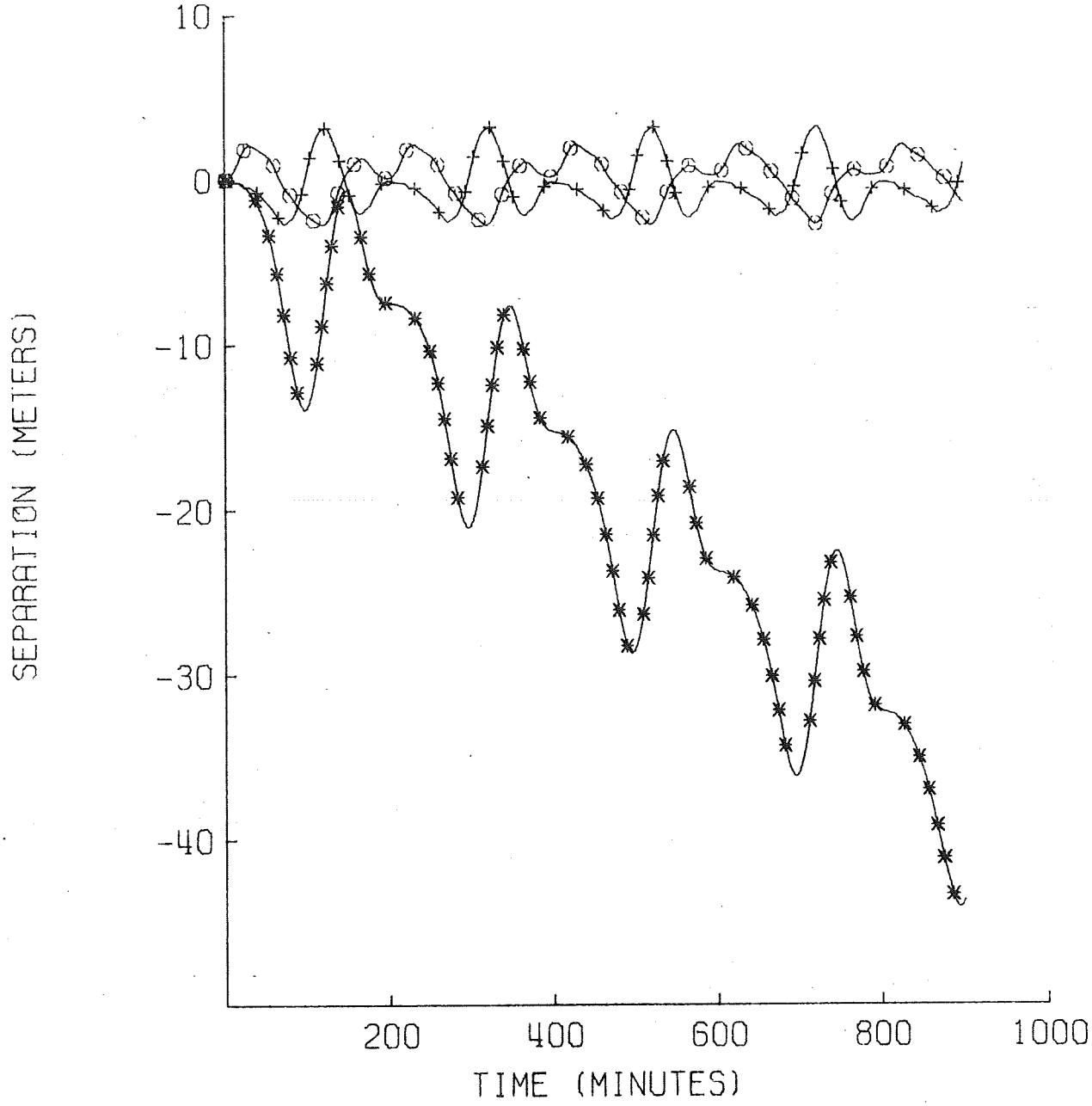
(*) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(O) BI-NORMAL CROSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(11 , 7) = -.1165
FACTOR USED IS 1.000000

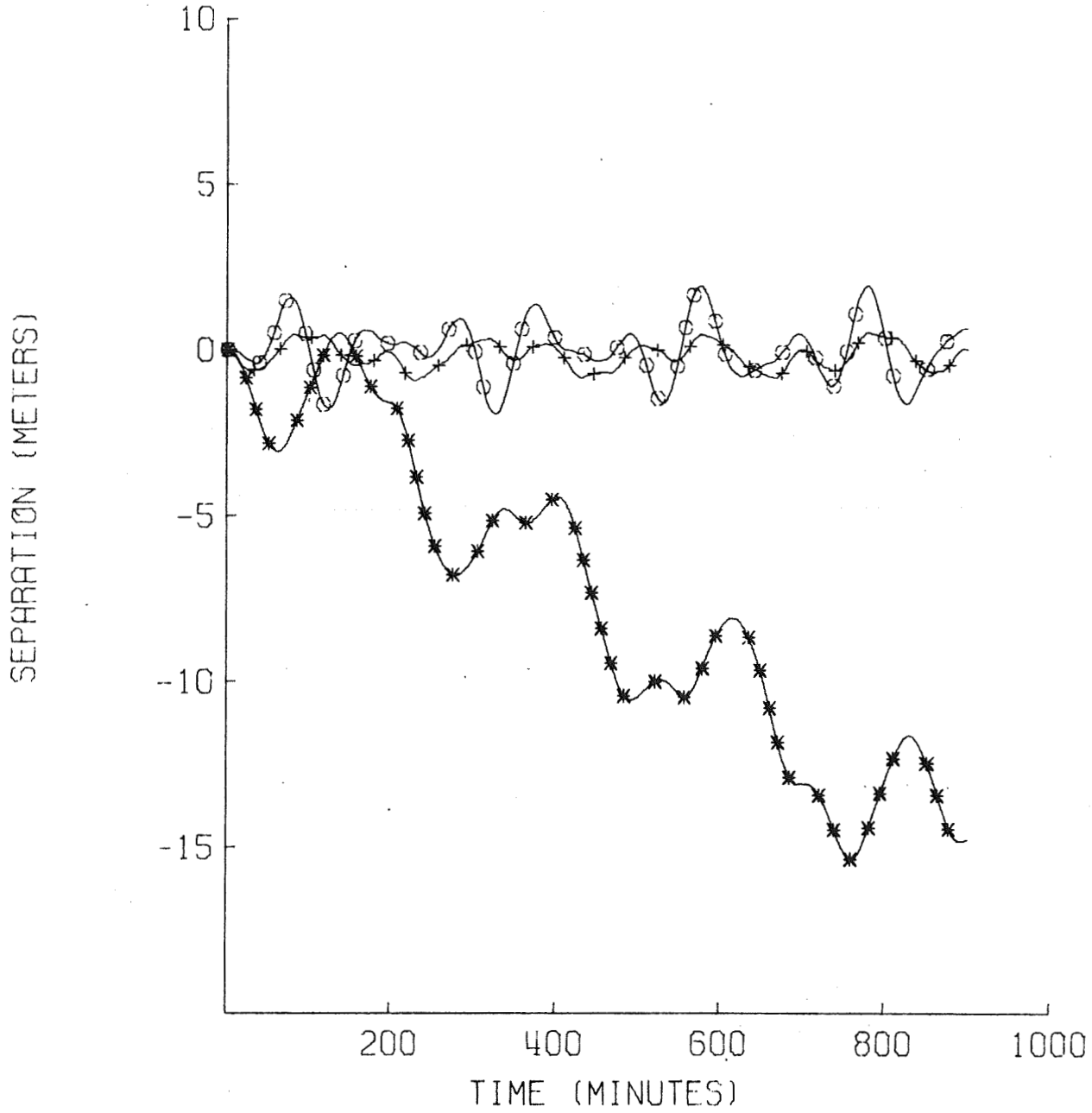
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊘) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(11 ,8) = .0442
FACTØR USED IS 1.000000

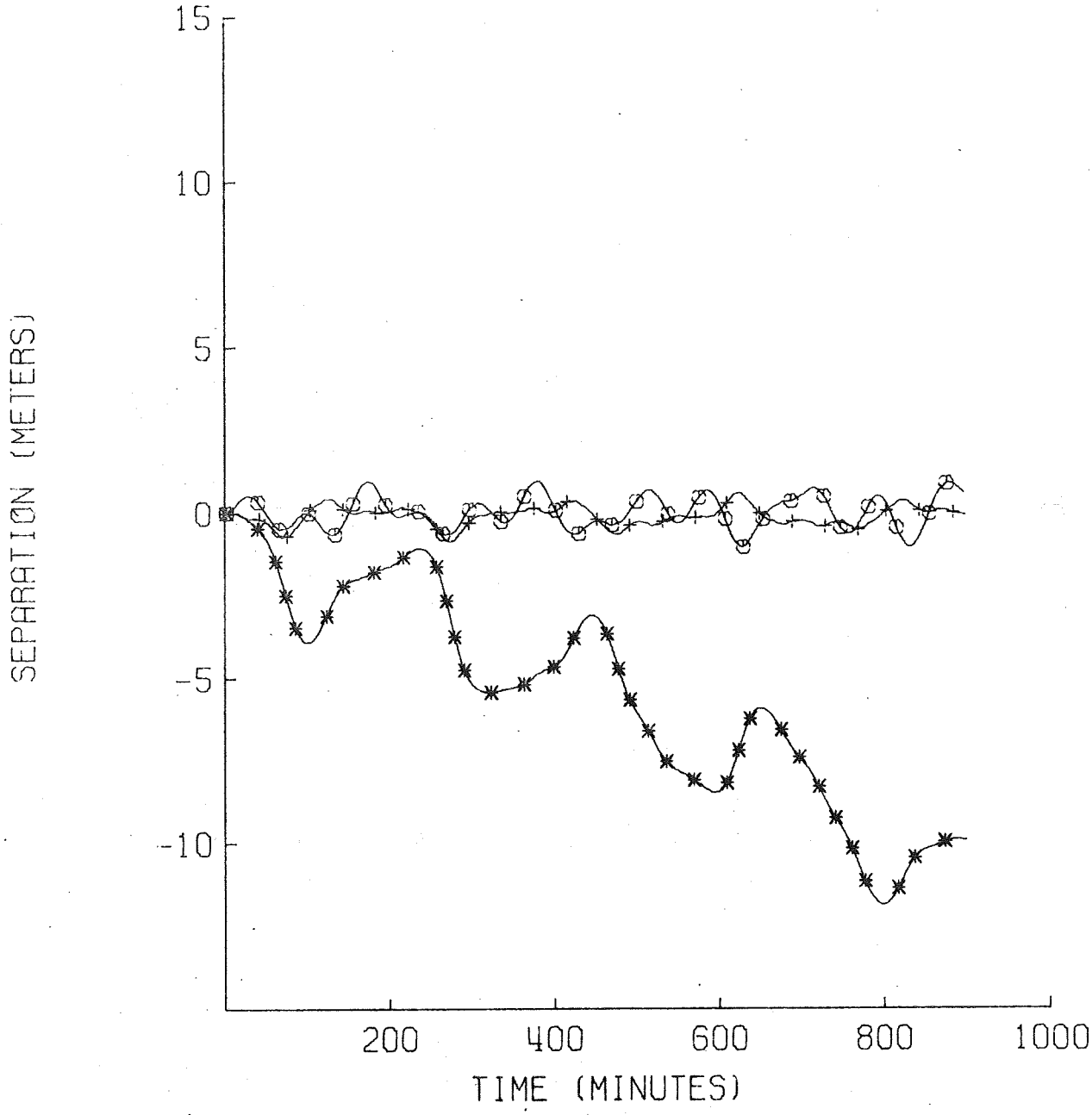
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(11 , 8) = .0348
FACTOR USED IS 1.000000

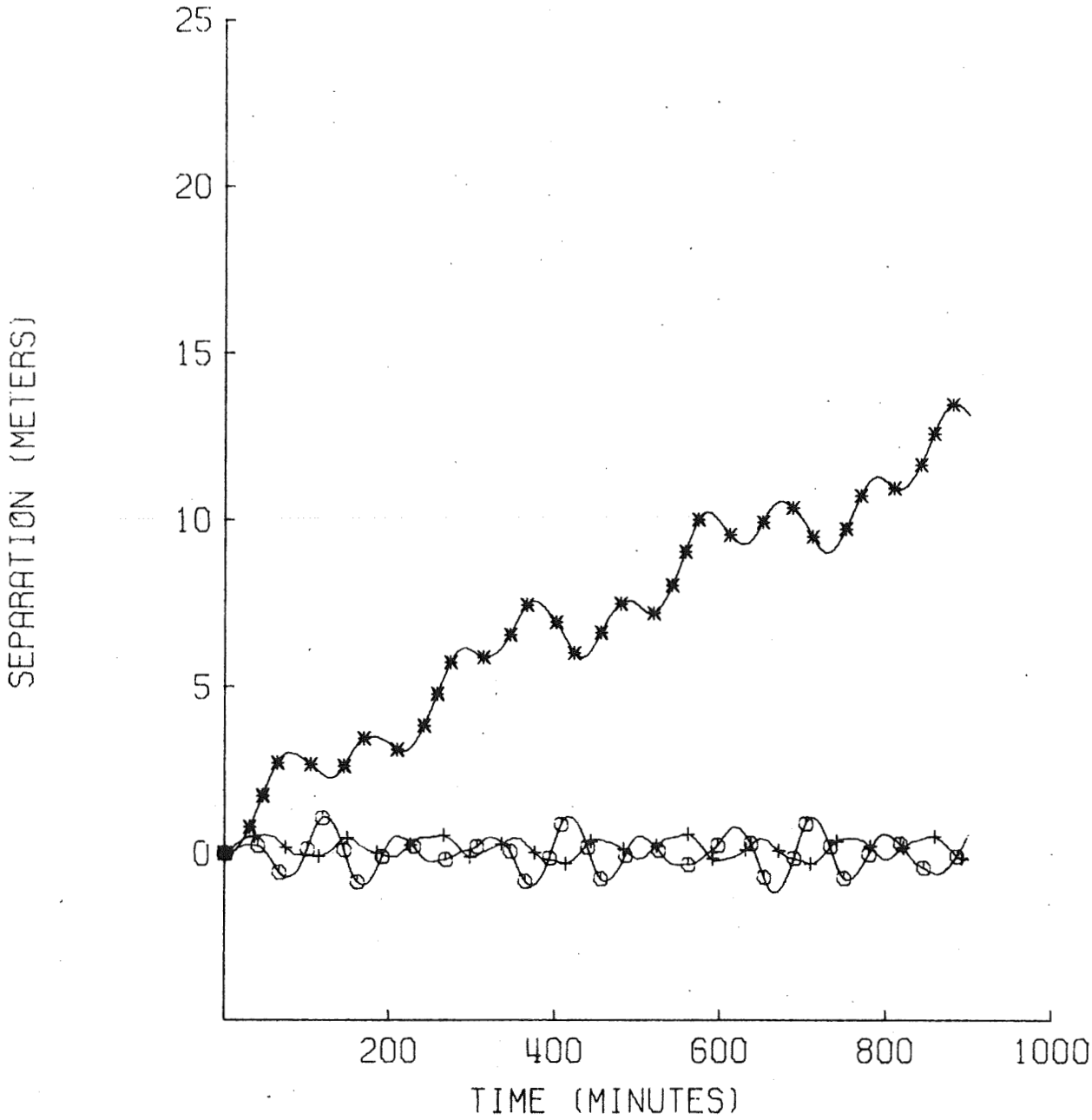
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(11 ,9) = .0257
FACTOR USED IS 1.000000

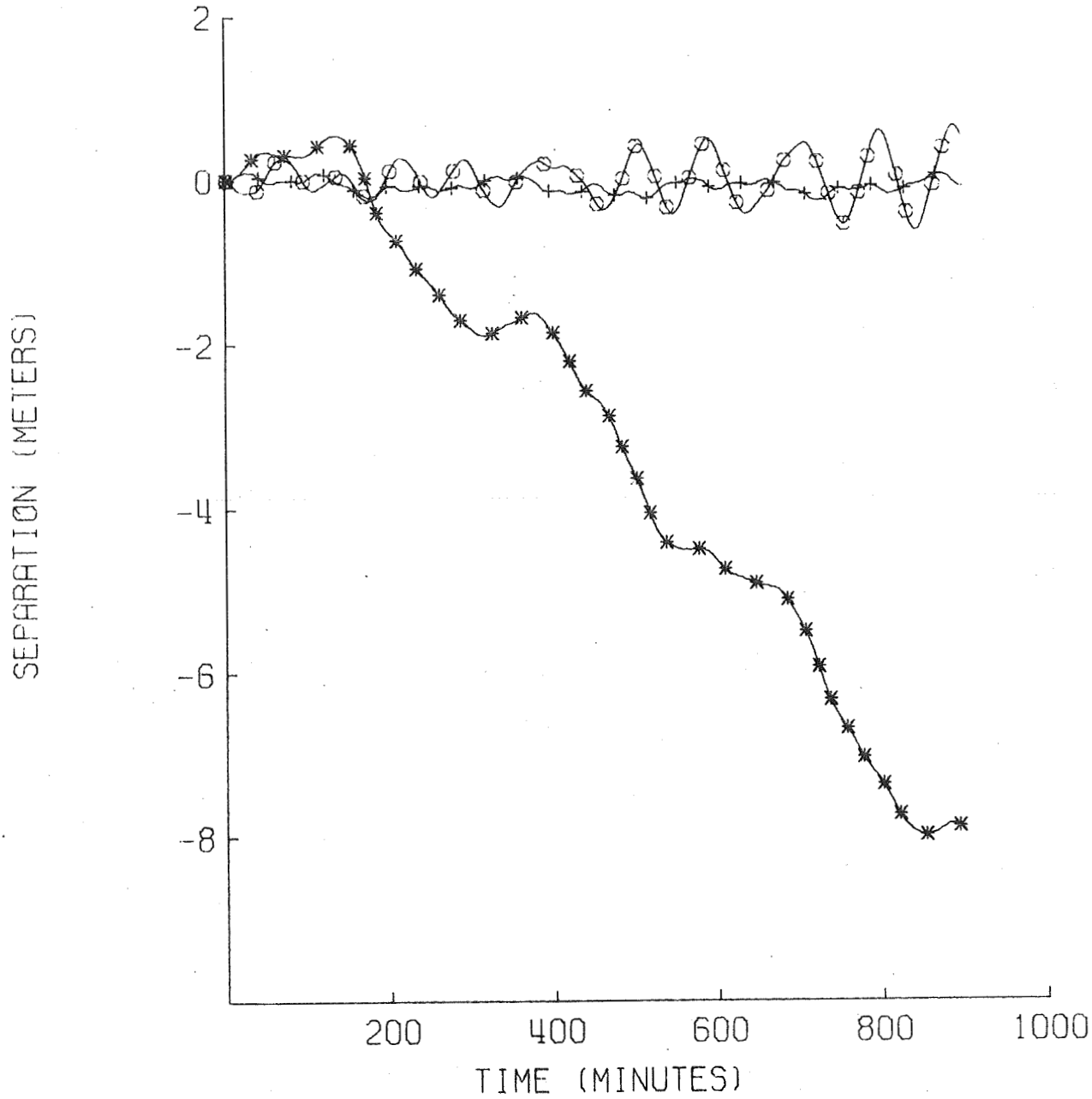
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(11 , 9) = .0139
FACTØR USED IS 1.000000

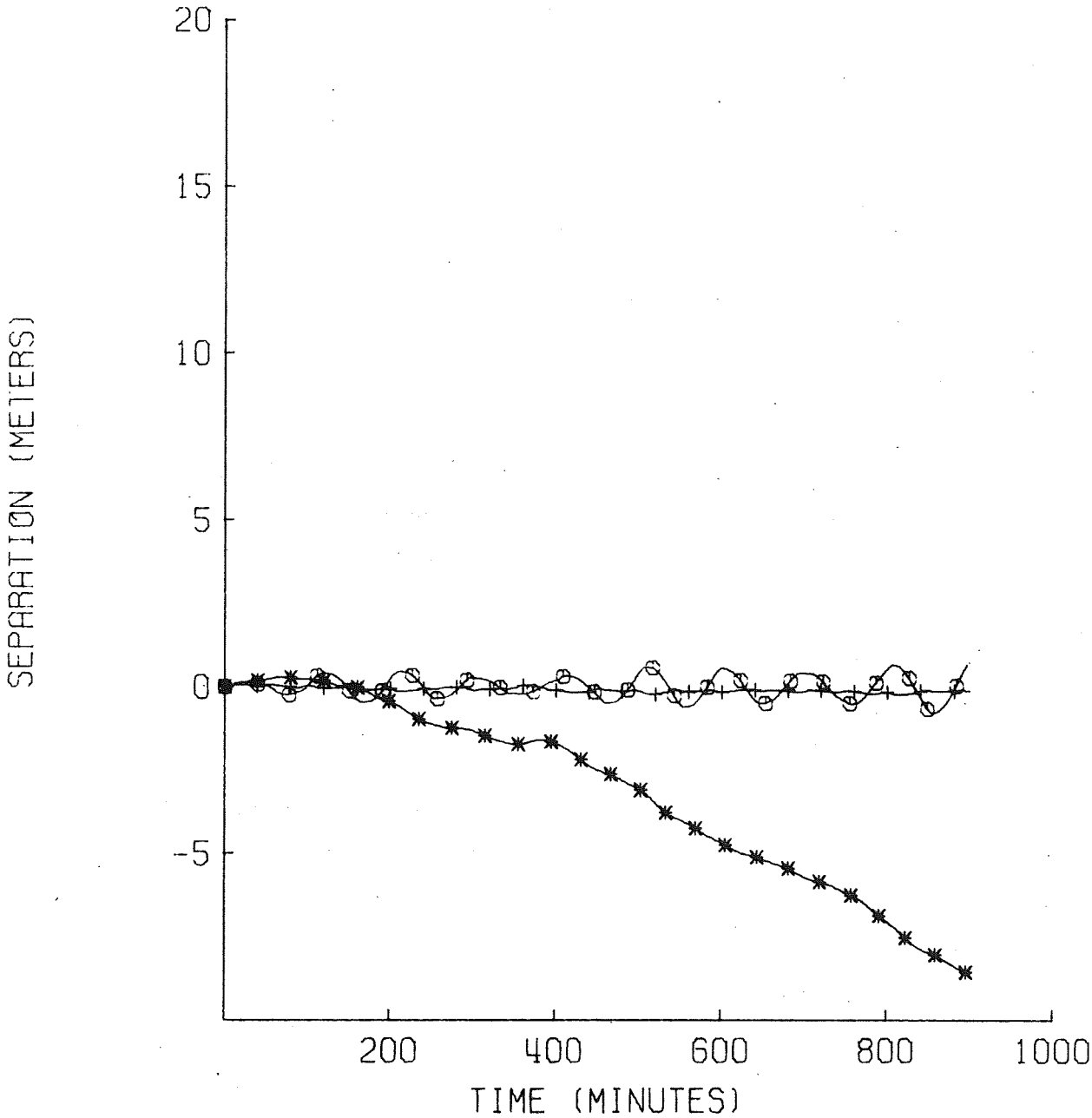
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(11 , 10) = -.0170
FACTØR USED IS 1.000000

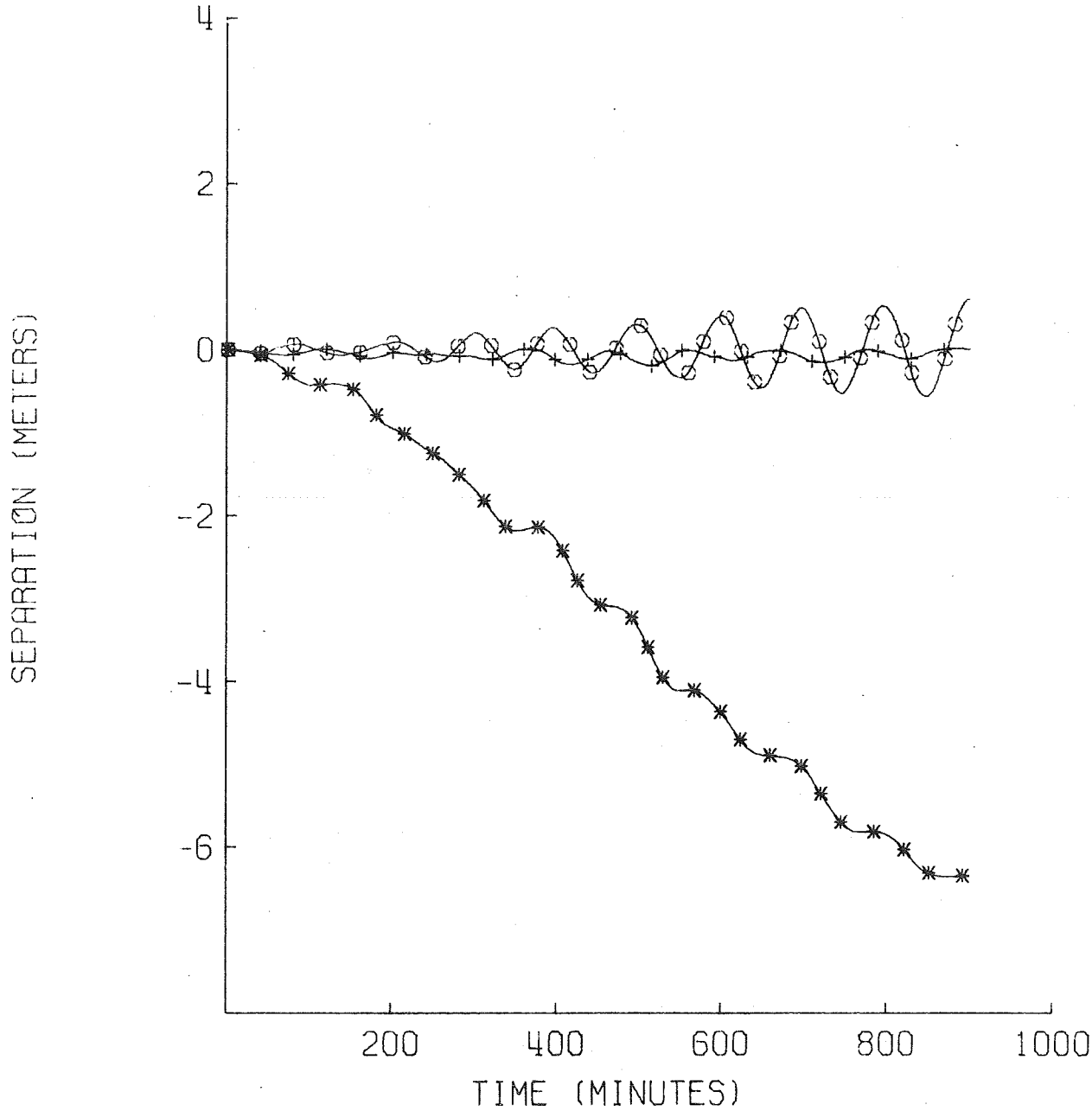
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⦶) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(11 , 10) = -.0039
FACTØR USED IS 1.000000

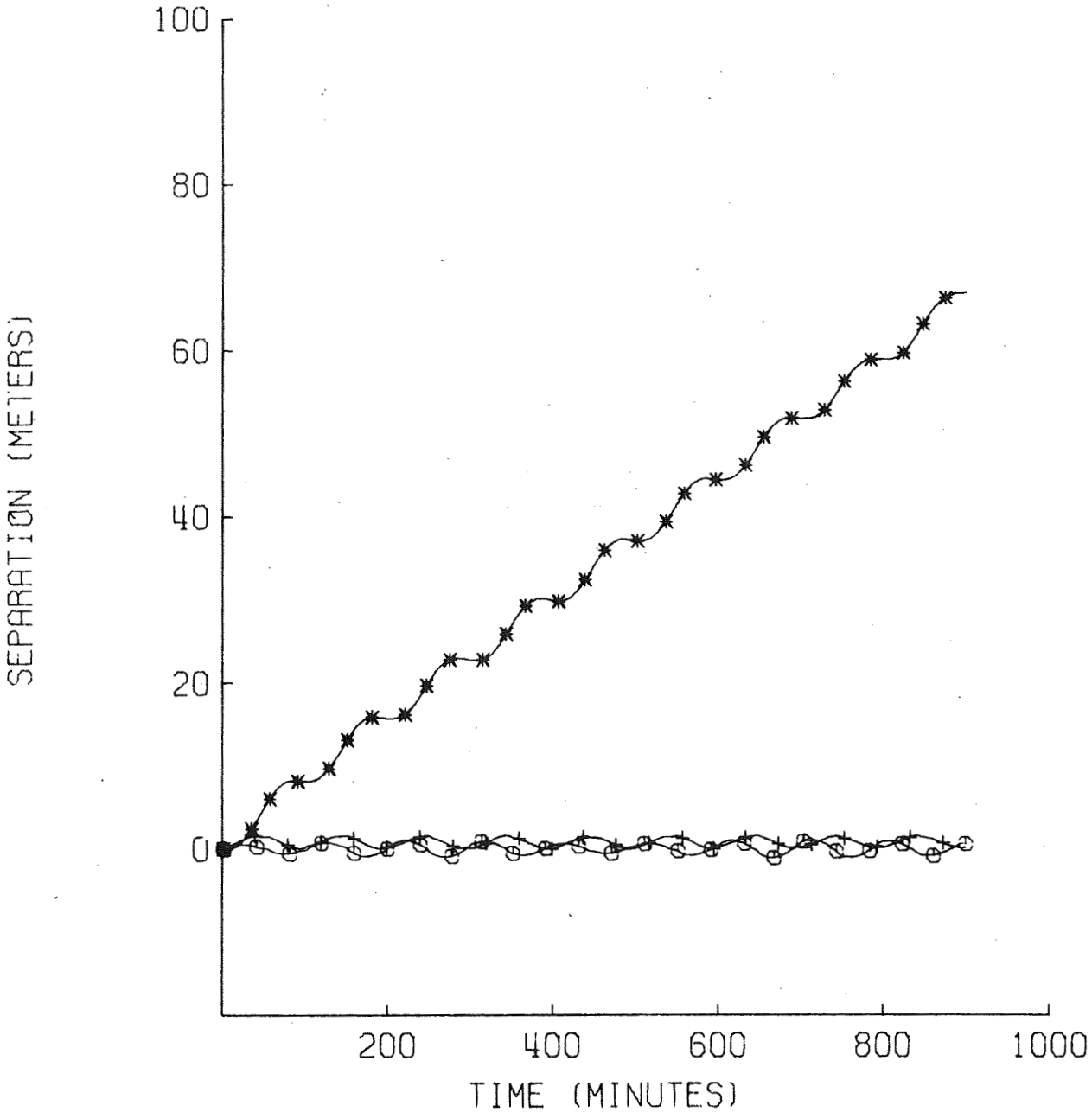
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊘) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(11 , 11) = .0642
FACTØR USED IS 1.000000

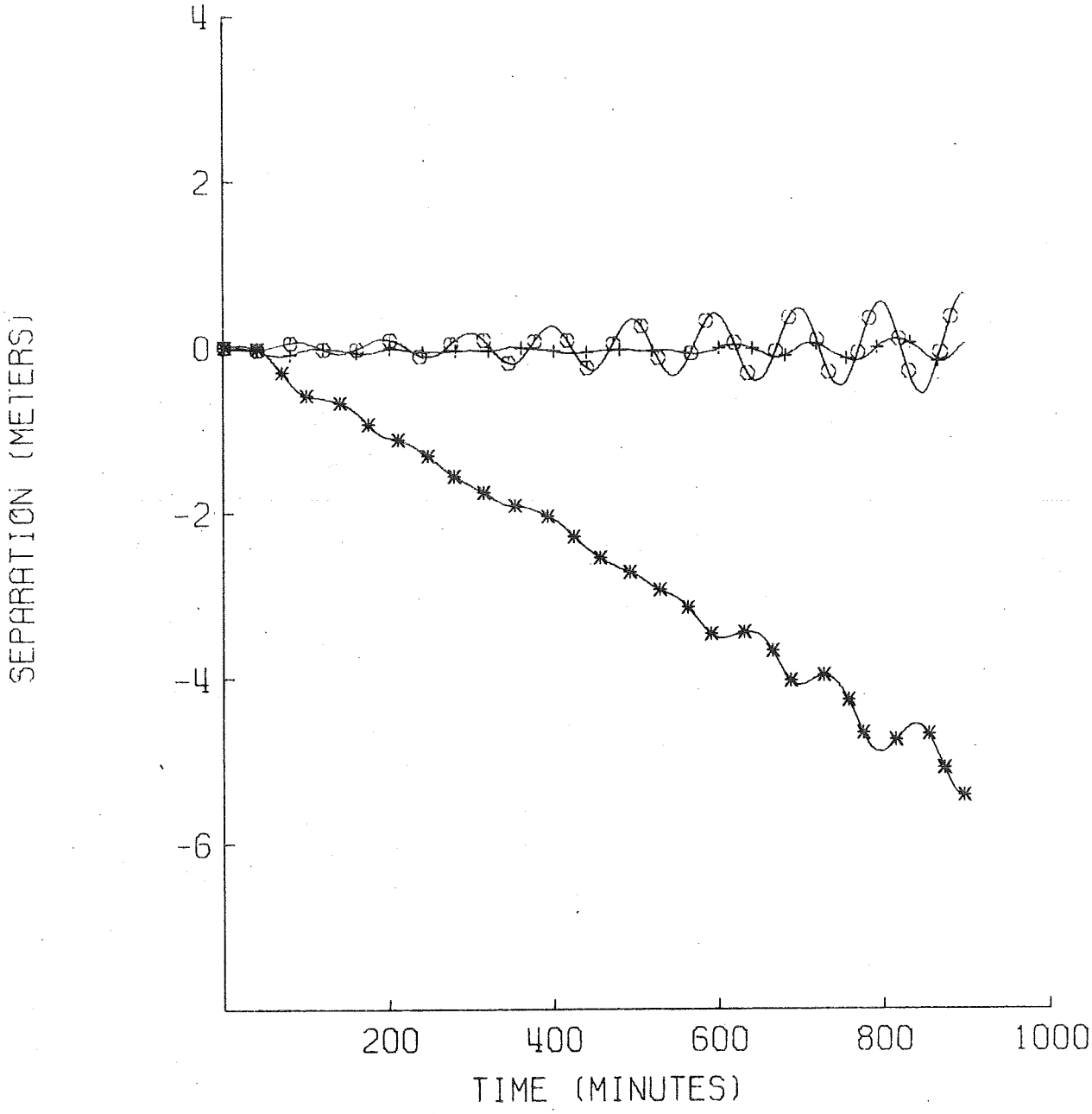
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(11 , 11) = .0050
FACTOR USED IS 1.000000

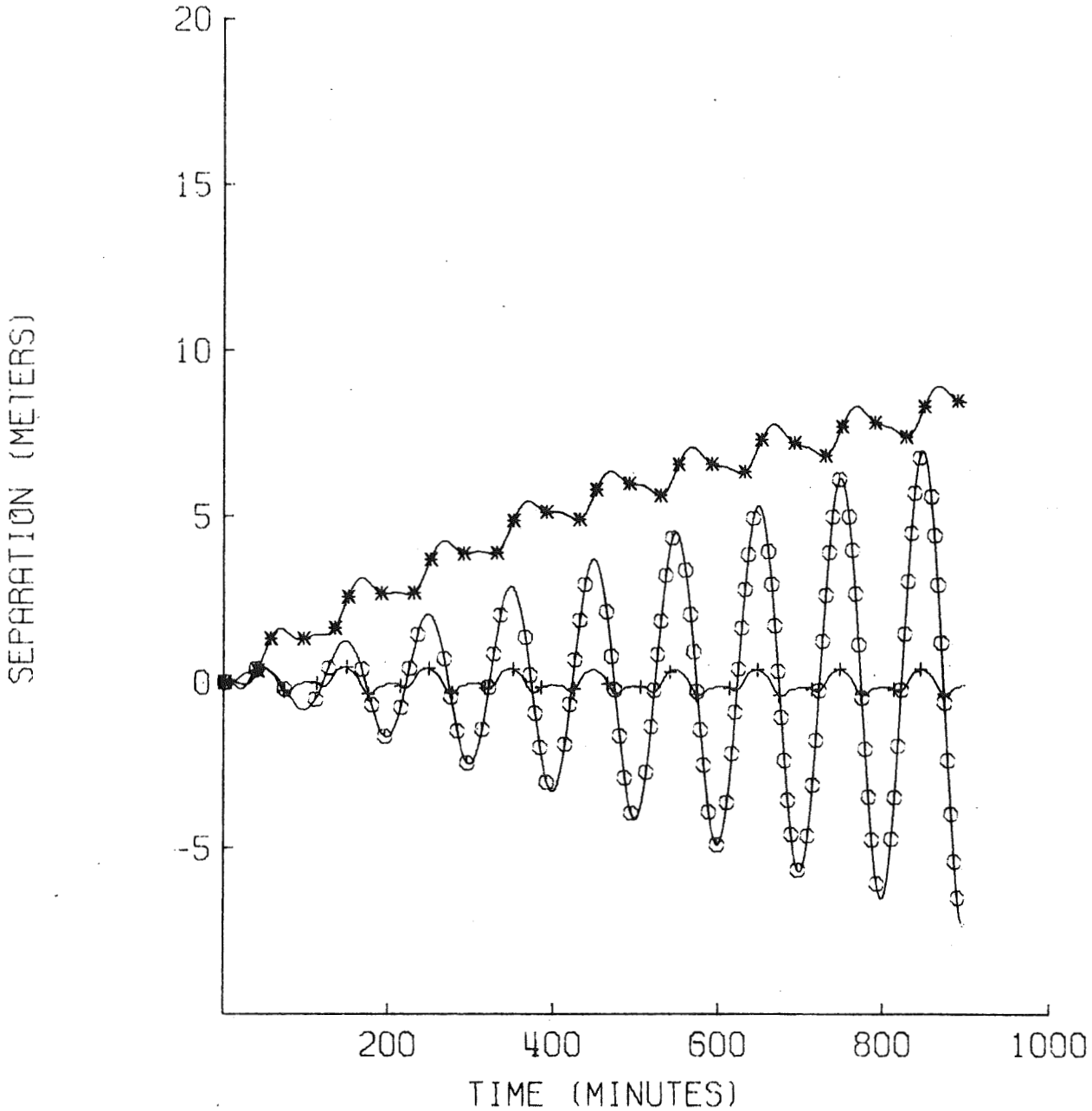
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(12,0) = -.0506
FACTOR USED IS 1.000000

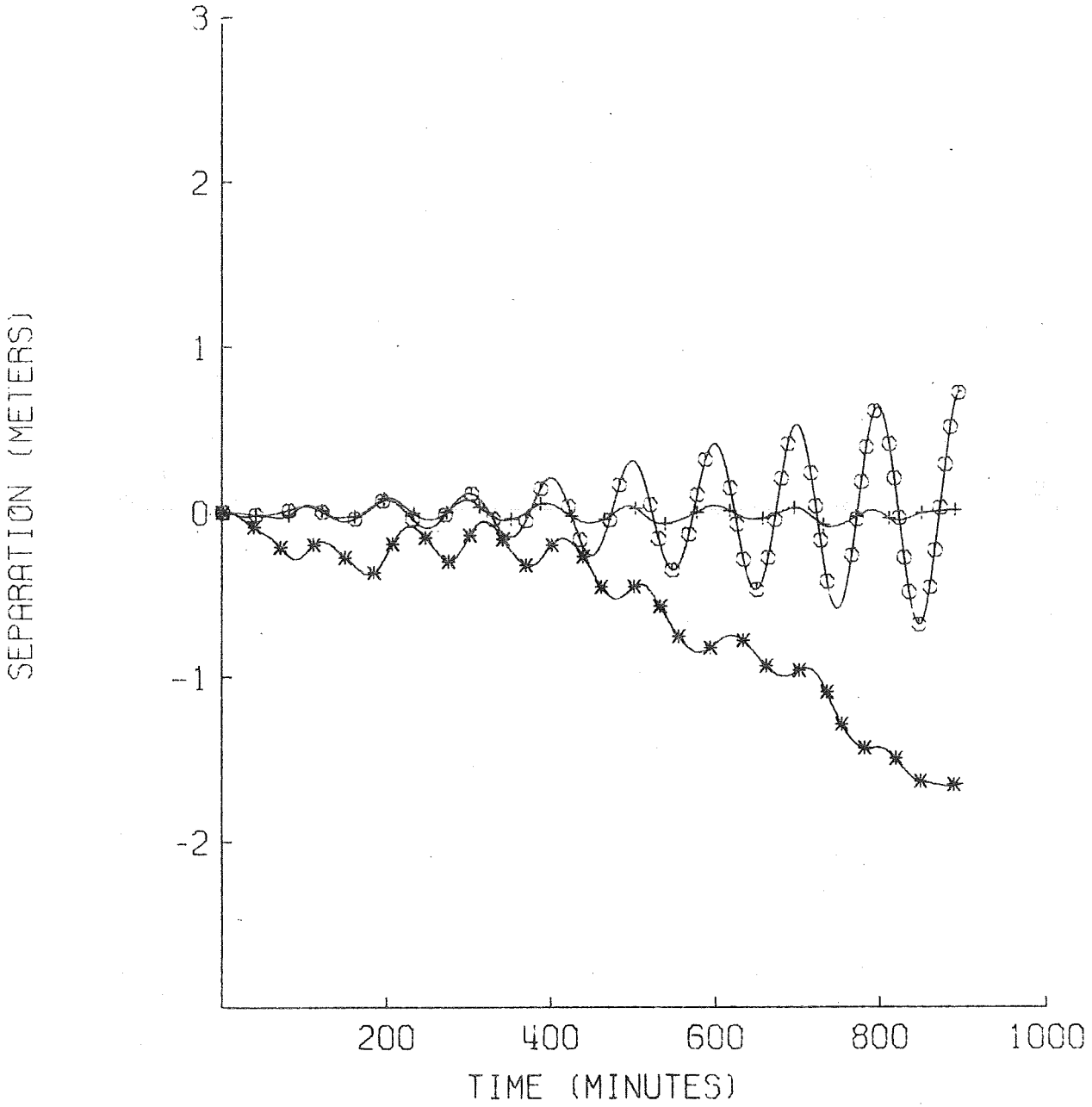
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(12,1) = .0021
FACTOR USED IS 1.000000

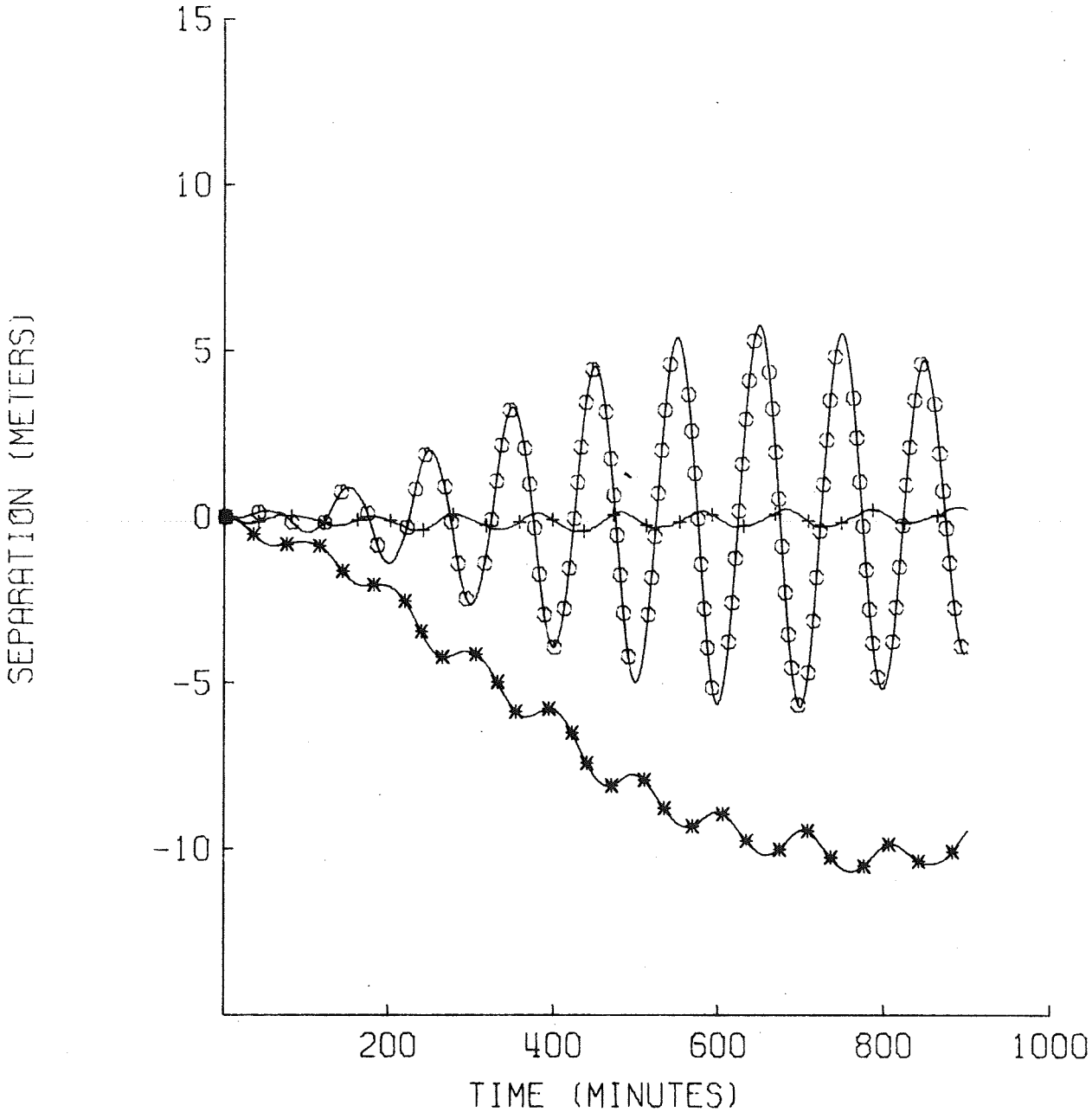
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(12 , 1) = -.0673
FACTØR USED IS 1.000000

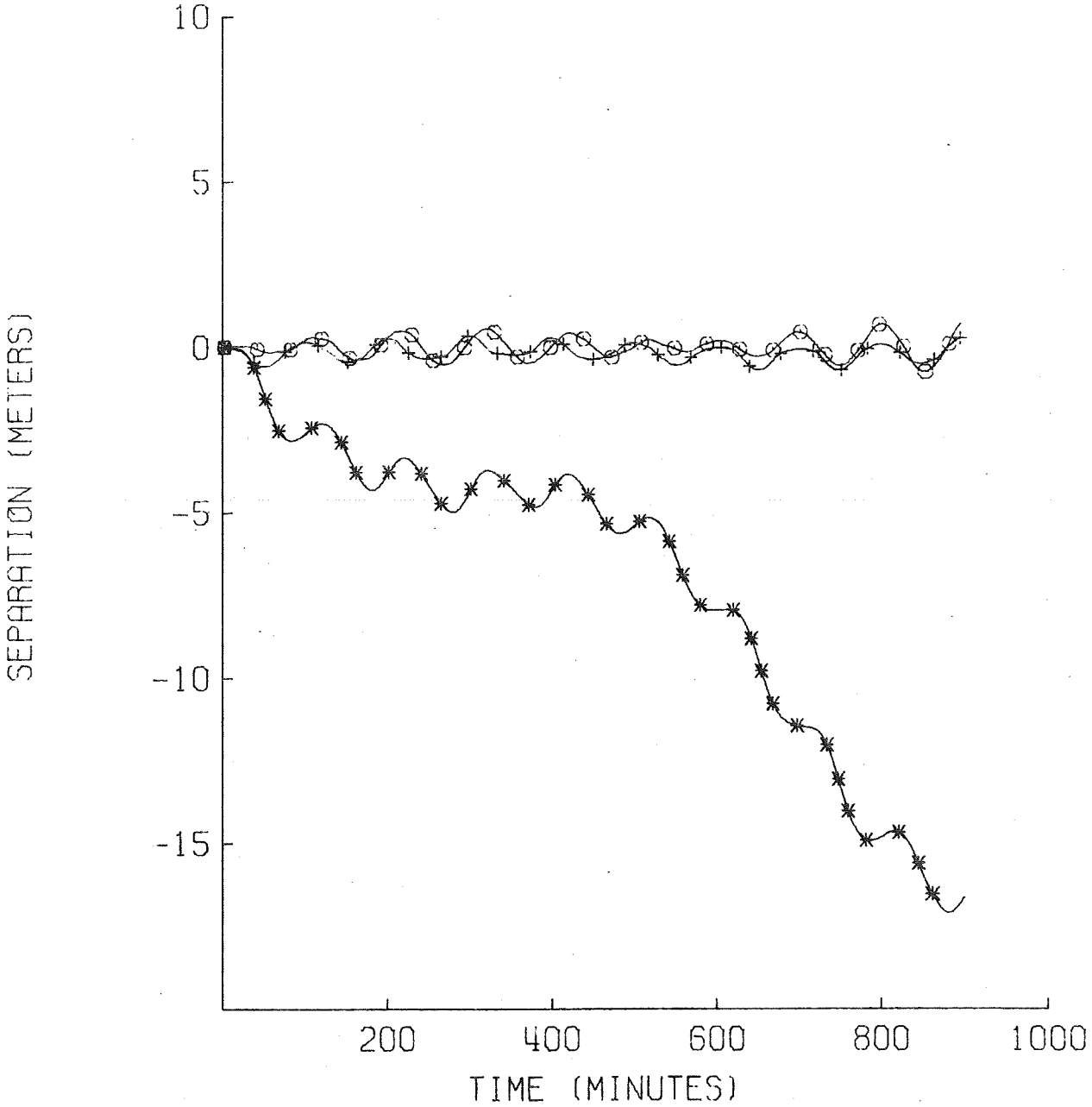
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⦶) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(12 , 2) = -.0368
FACTOR USED IS 1.000000

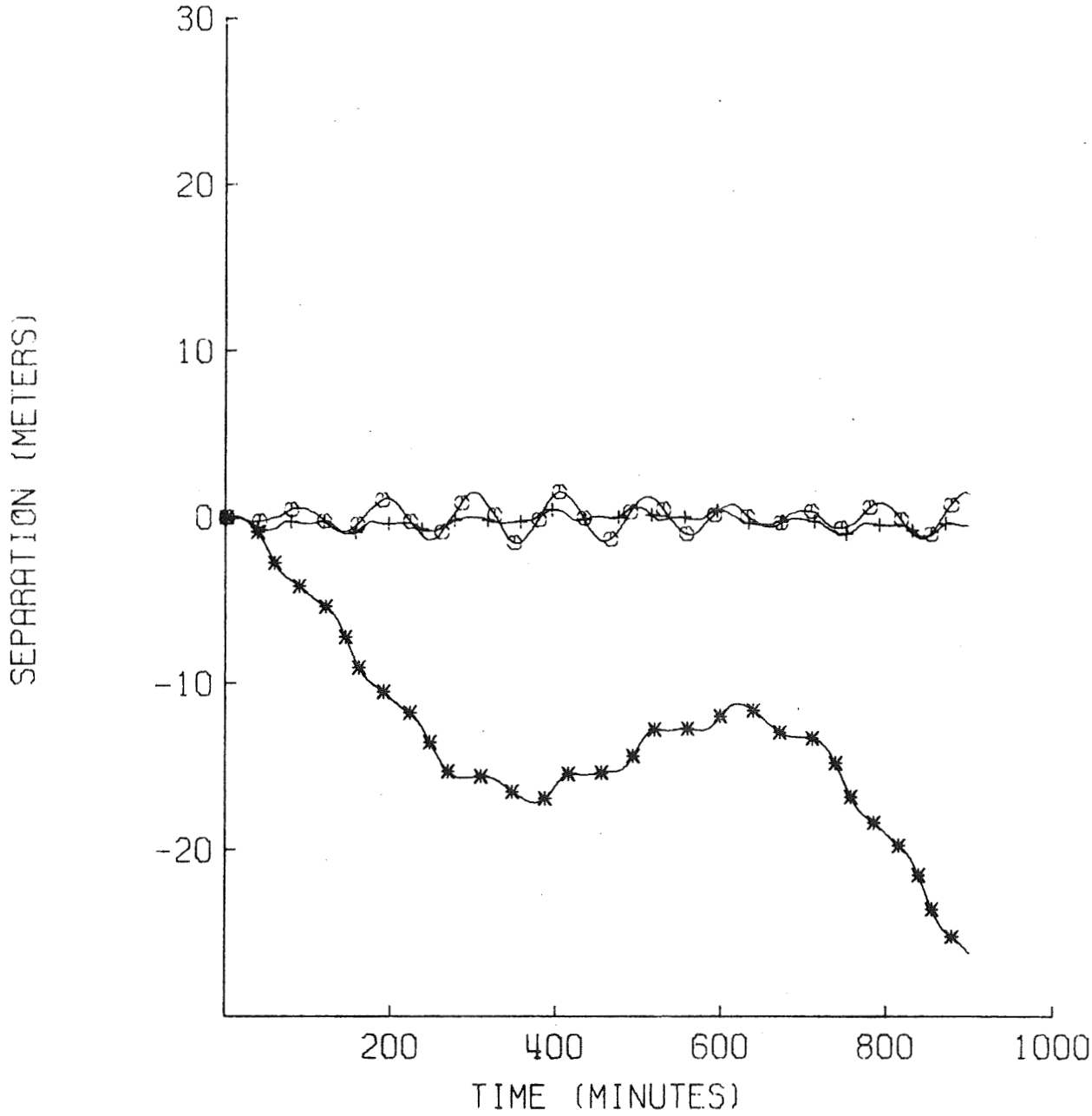
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊖) BI-NORMAL CROSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(12 , 2) = .0903
FACTOR USED IS 1.000000

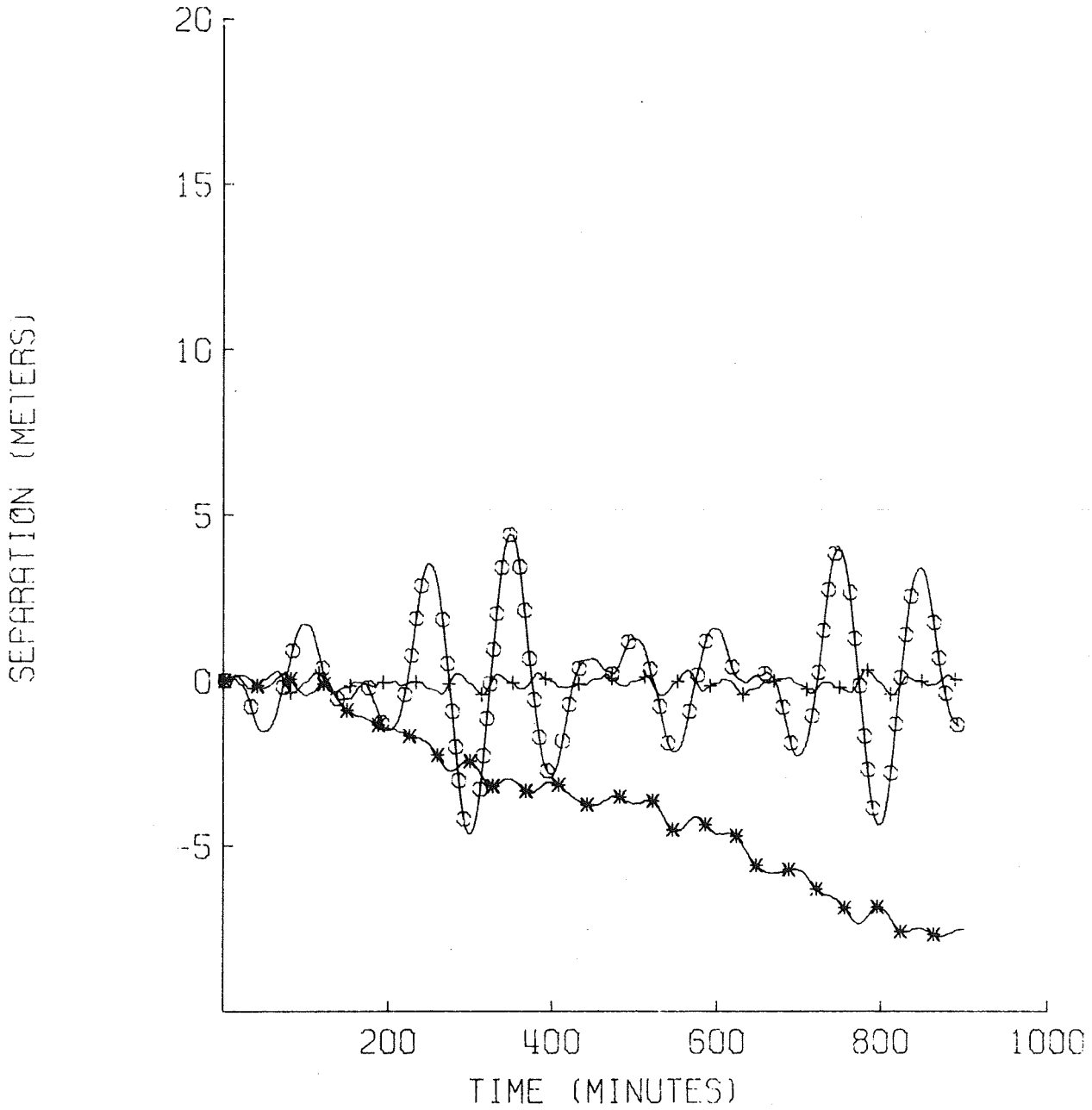
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊙) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(12 ,3) = .1361
FACTØR USED IS 1.000000

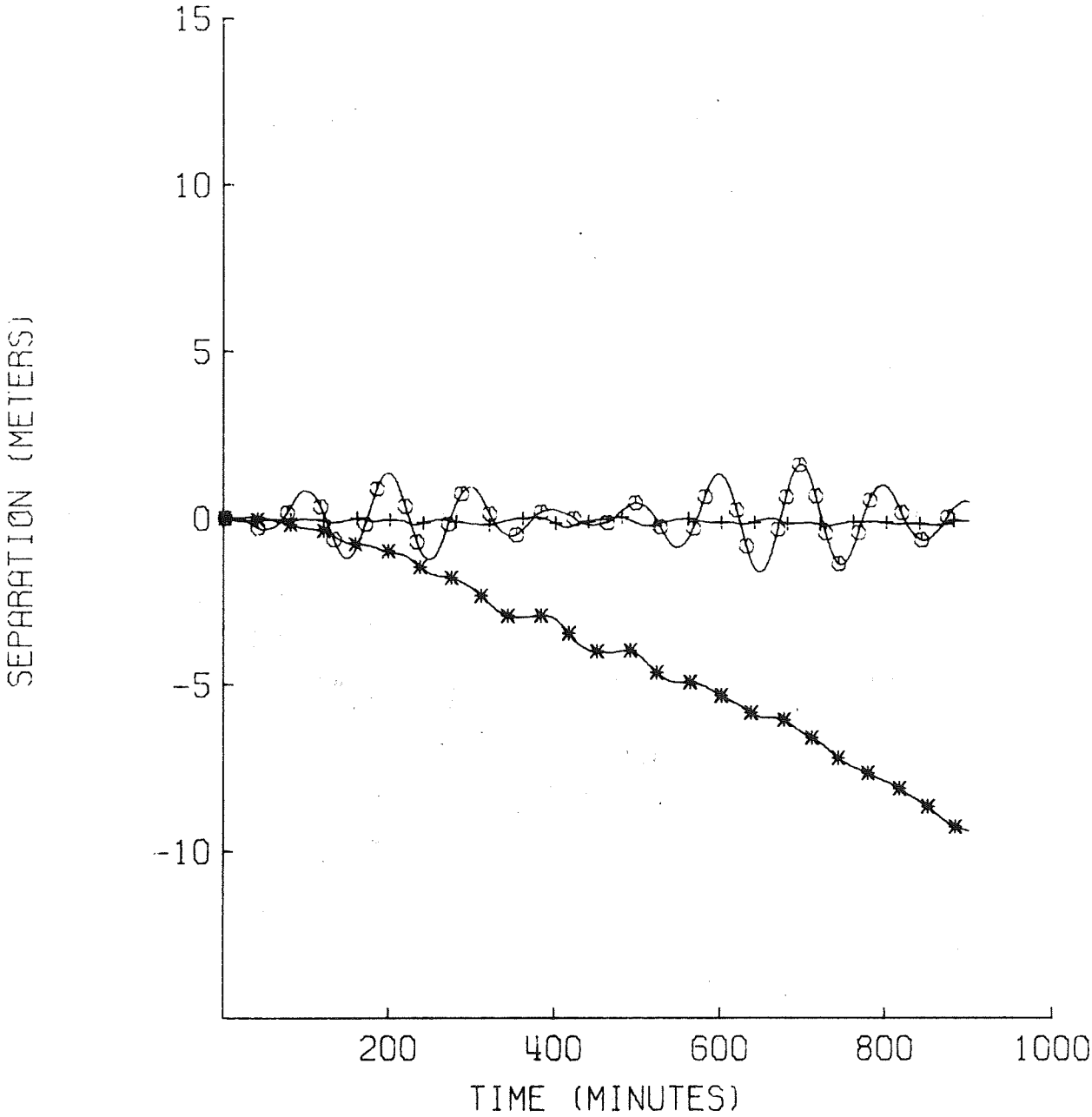
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(12 , 3) = -.0263
FACTØR USED IS 1.000000

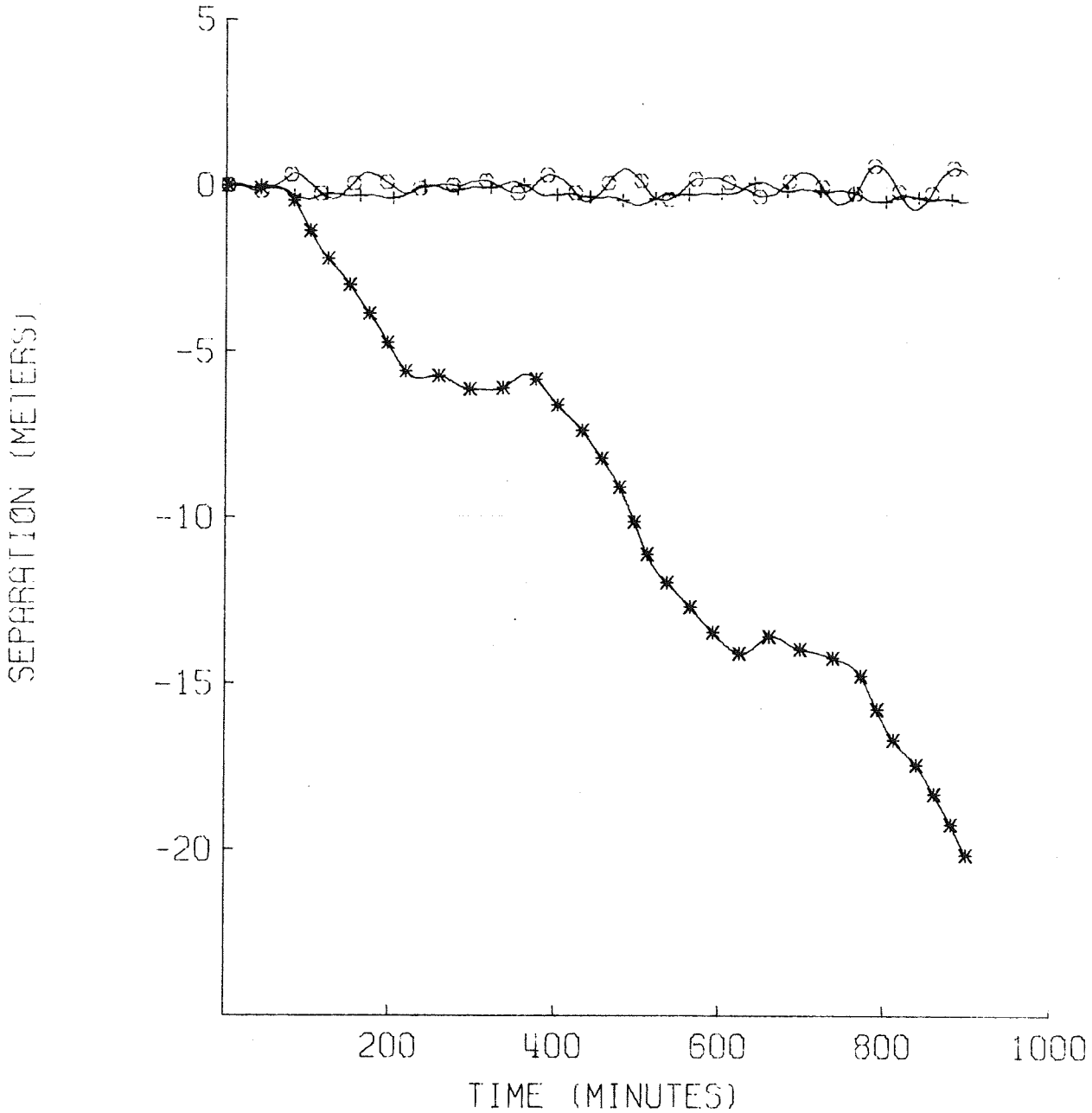
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⦶) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7139.6535

RUN FØR C(12 ,4) = -.0270
FACTØR USED IS 1.000000

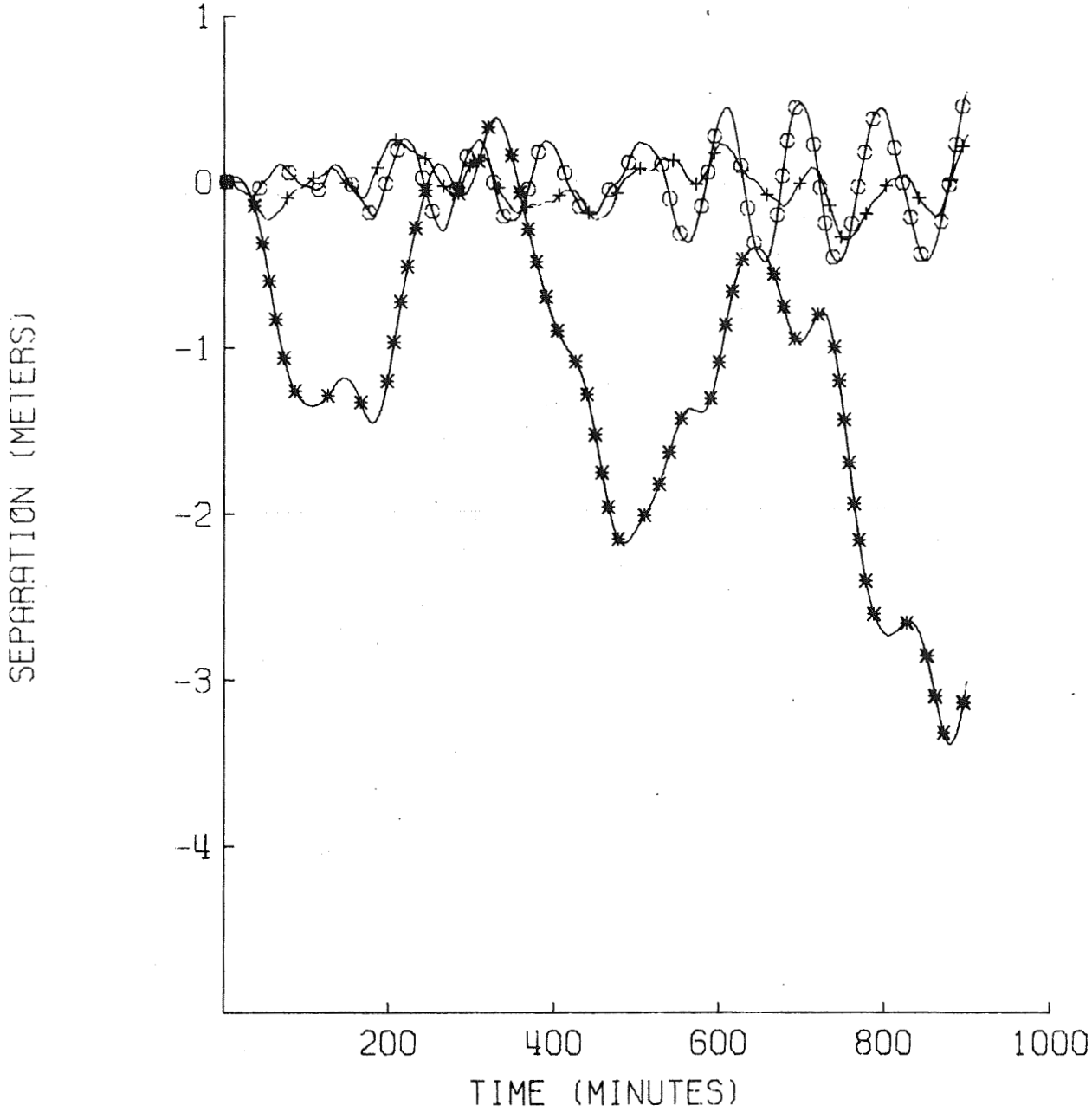
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊕) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(12 , 4) = -.0190
FACTOR USED IS 1.000000

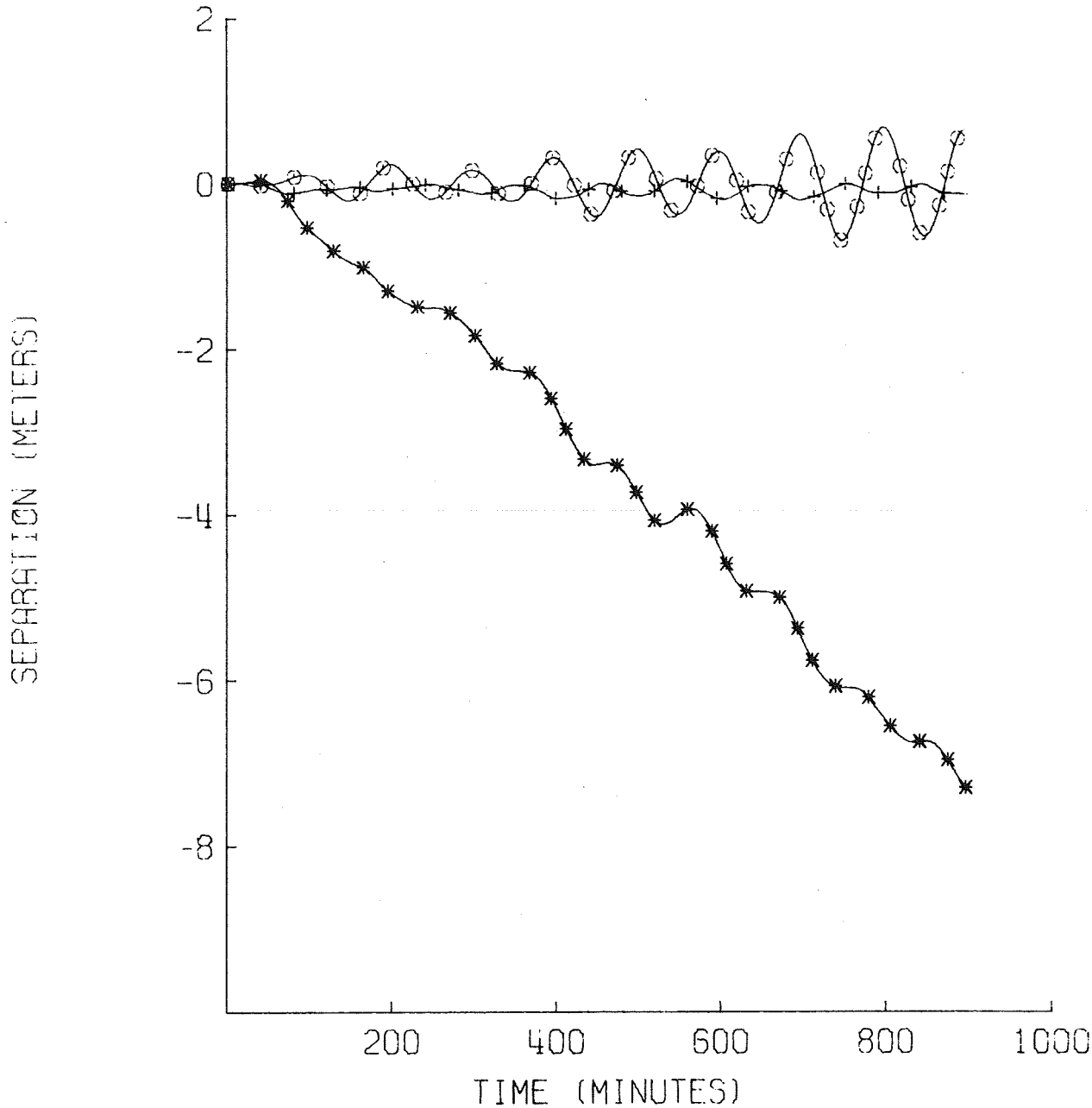
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(12 , 5) = .0047
FACTØR USED IS 1.000000

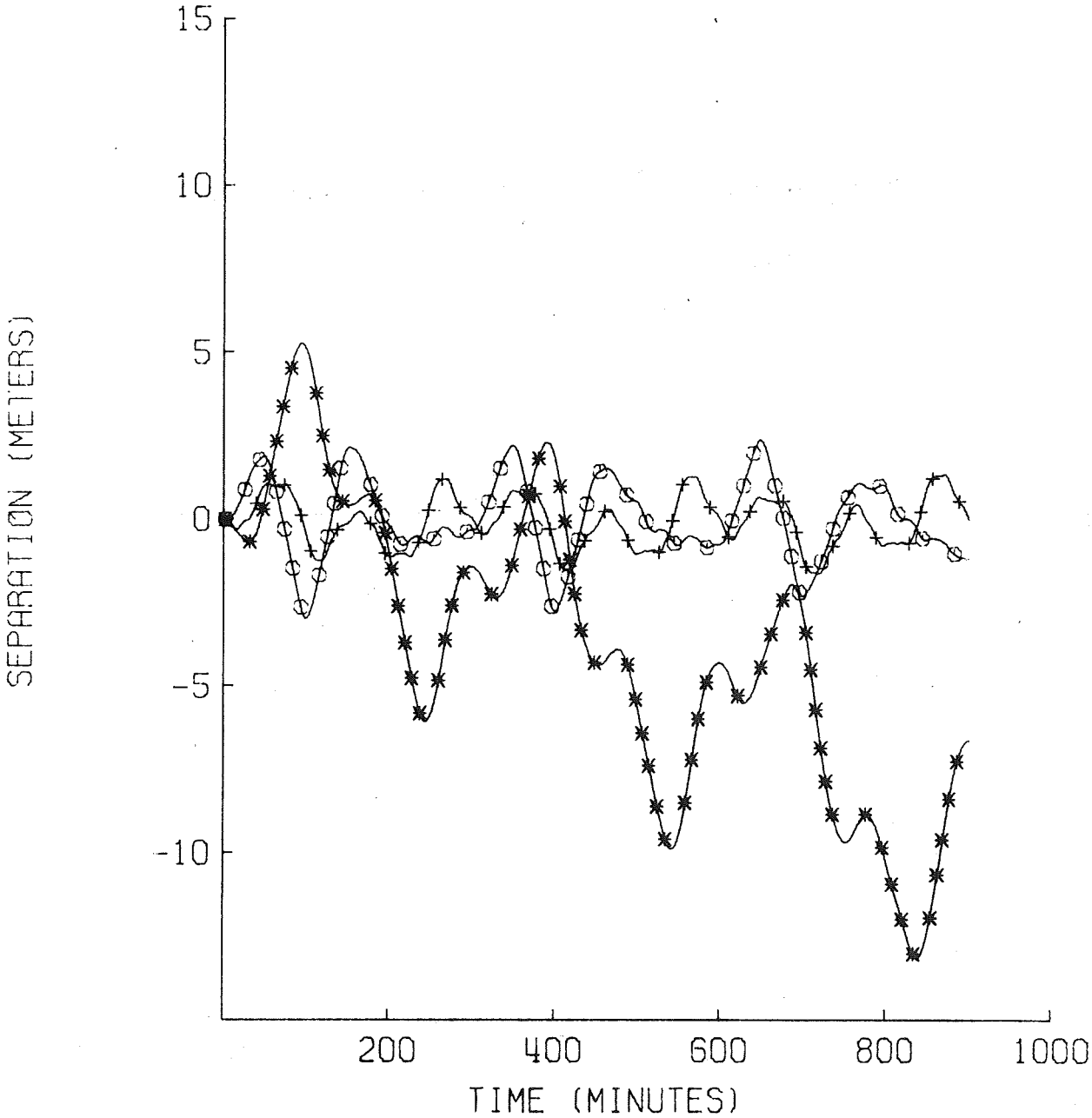
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(12 , 5) = -.1105
FACTØR USED IS 1.000000

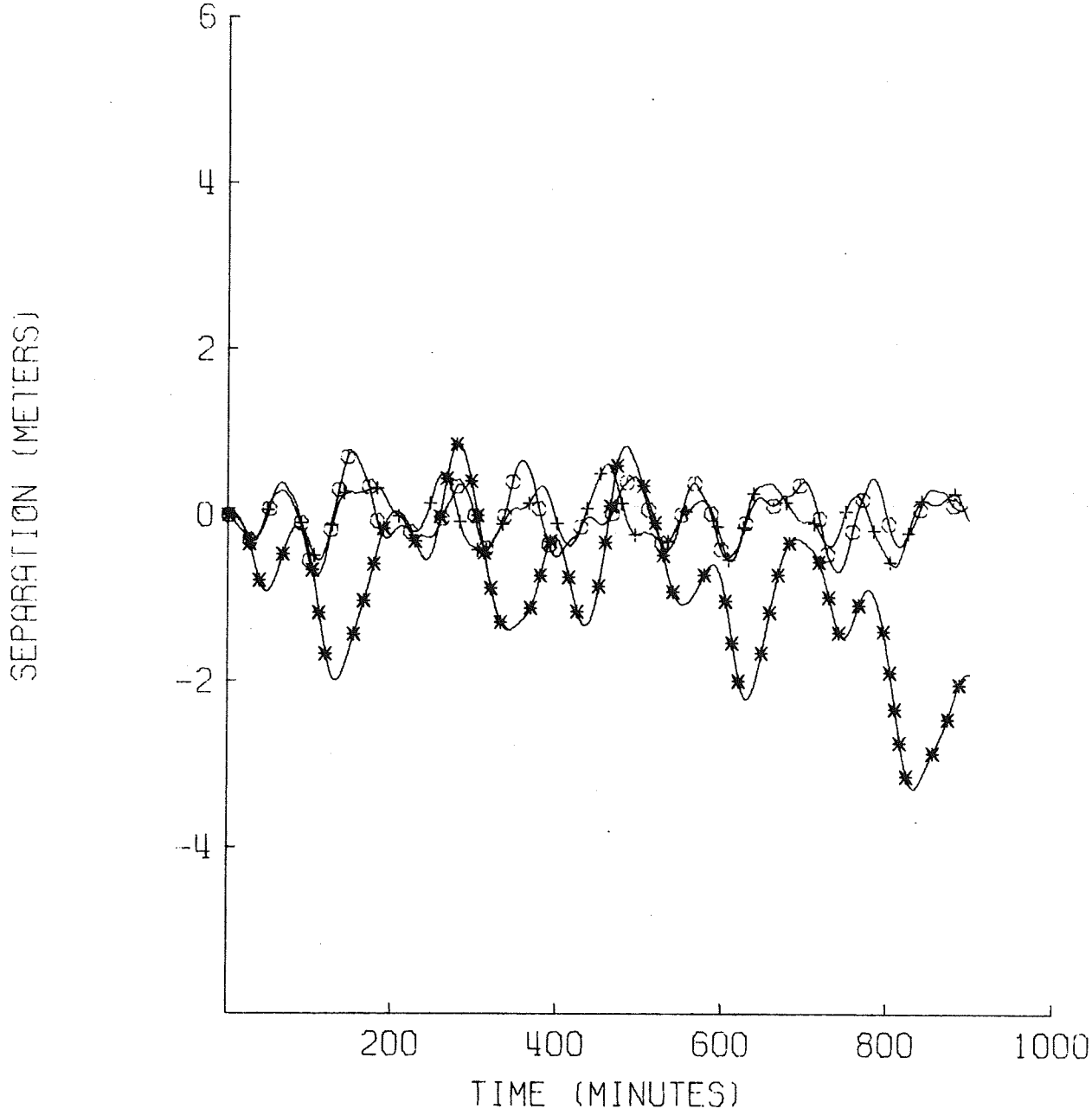
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(12,6) = .0354
FACTOR USED IS 1.000000

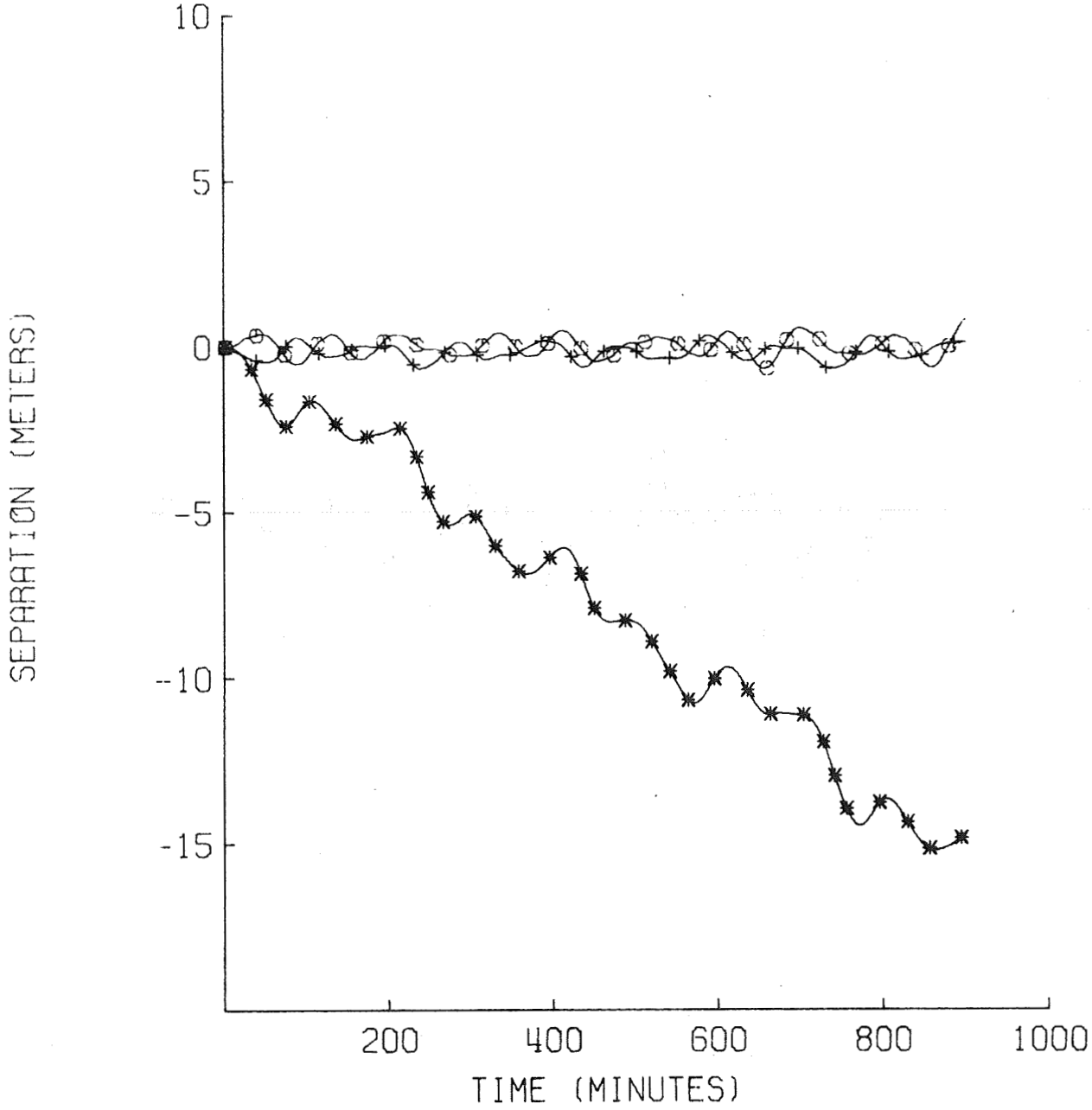
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(12 , 6) = .0254
FACTØR USED IS 1.000000

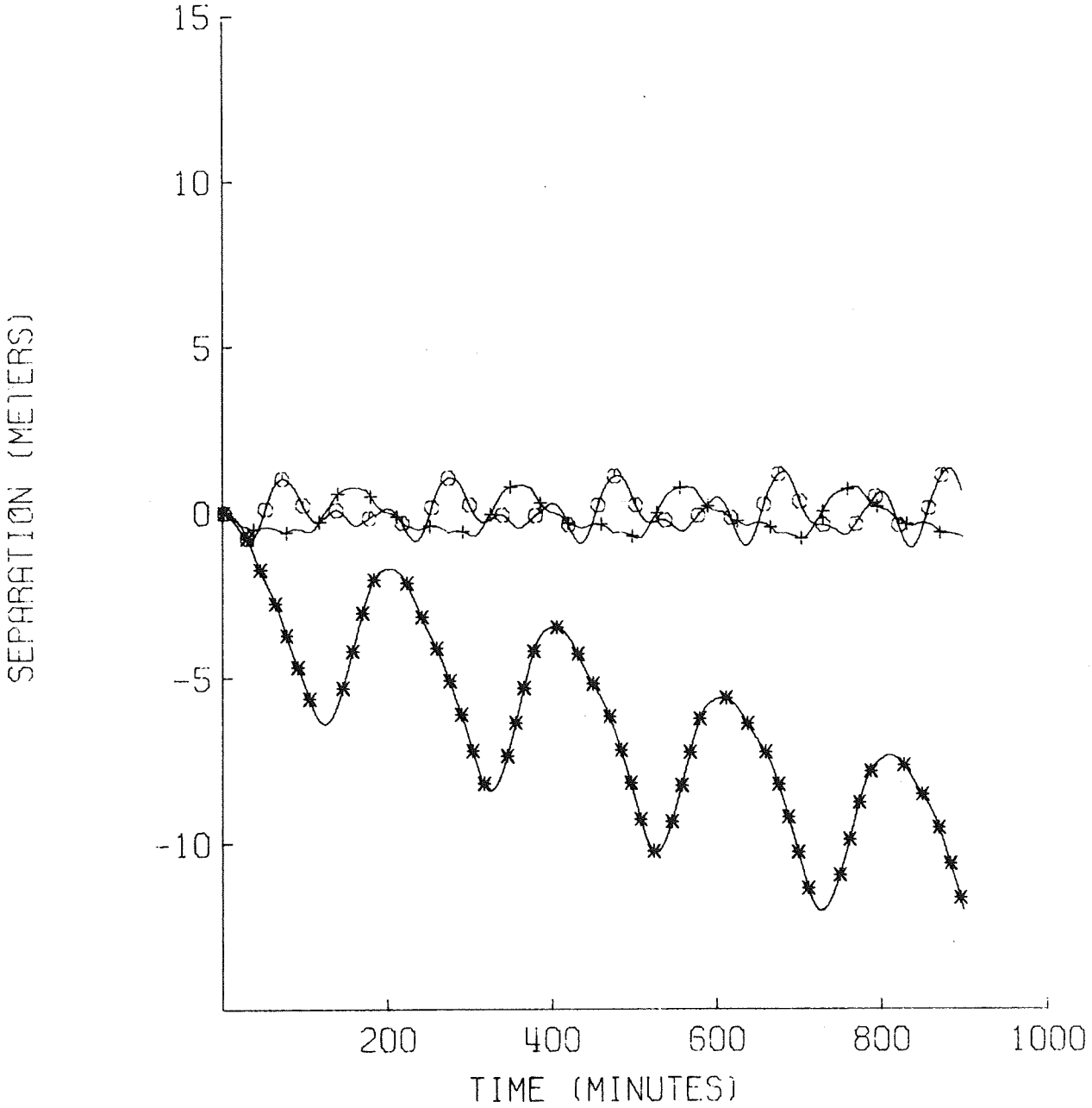
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊕) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(12 ,7) = -.0491
FACTOR USED IS 1.000000

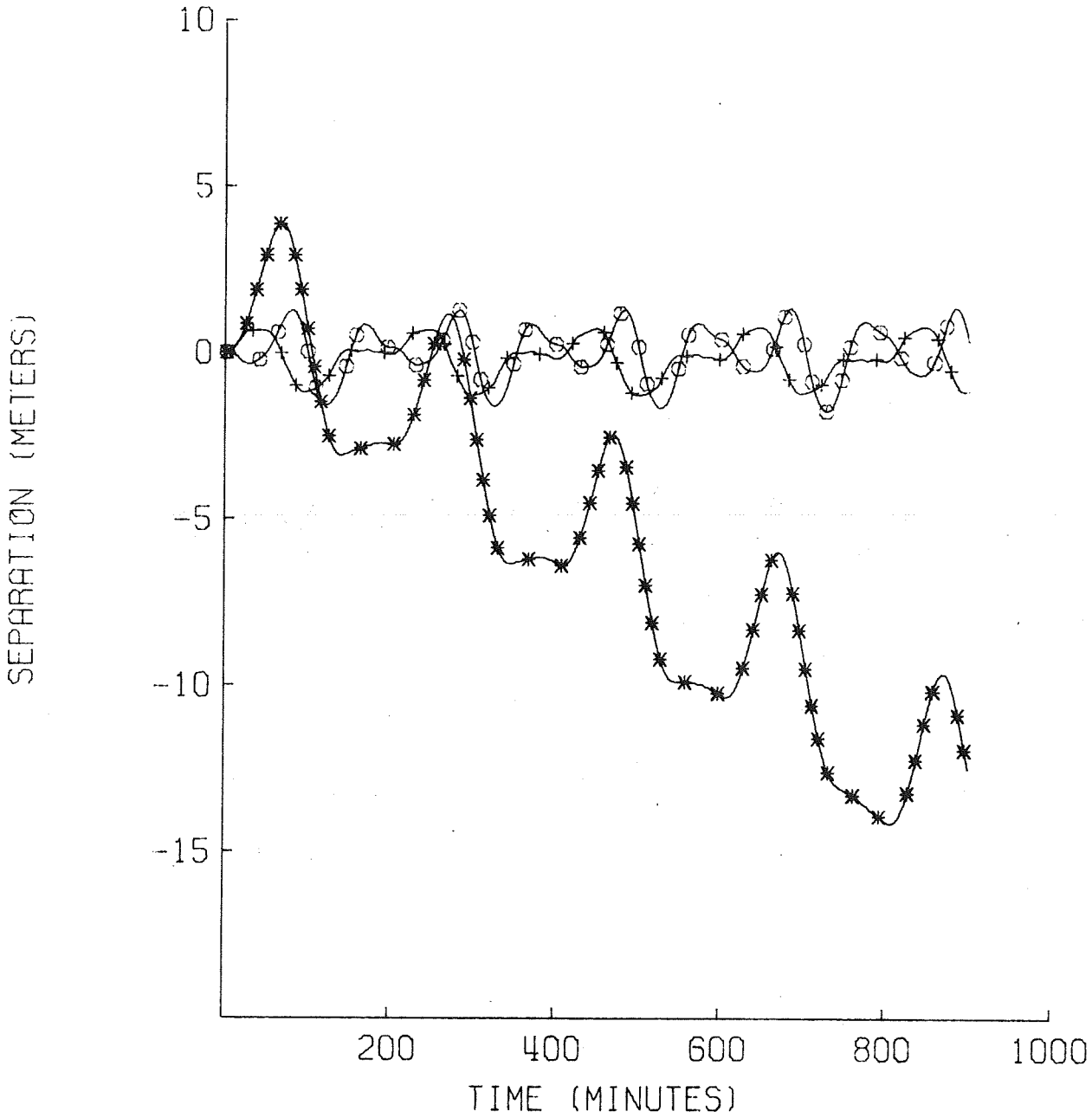
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(12 , 7) = .0508
FACTØR USED IS 1.000000

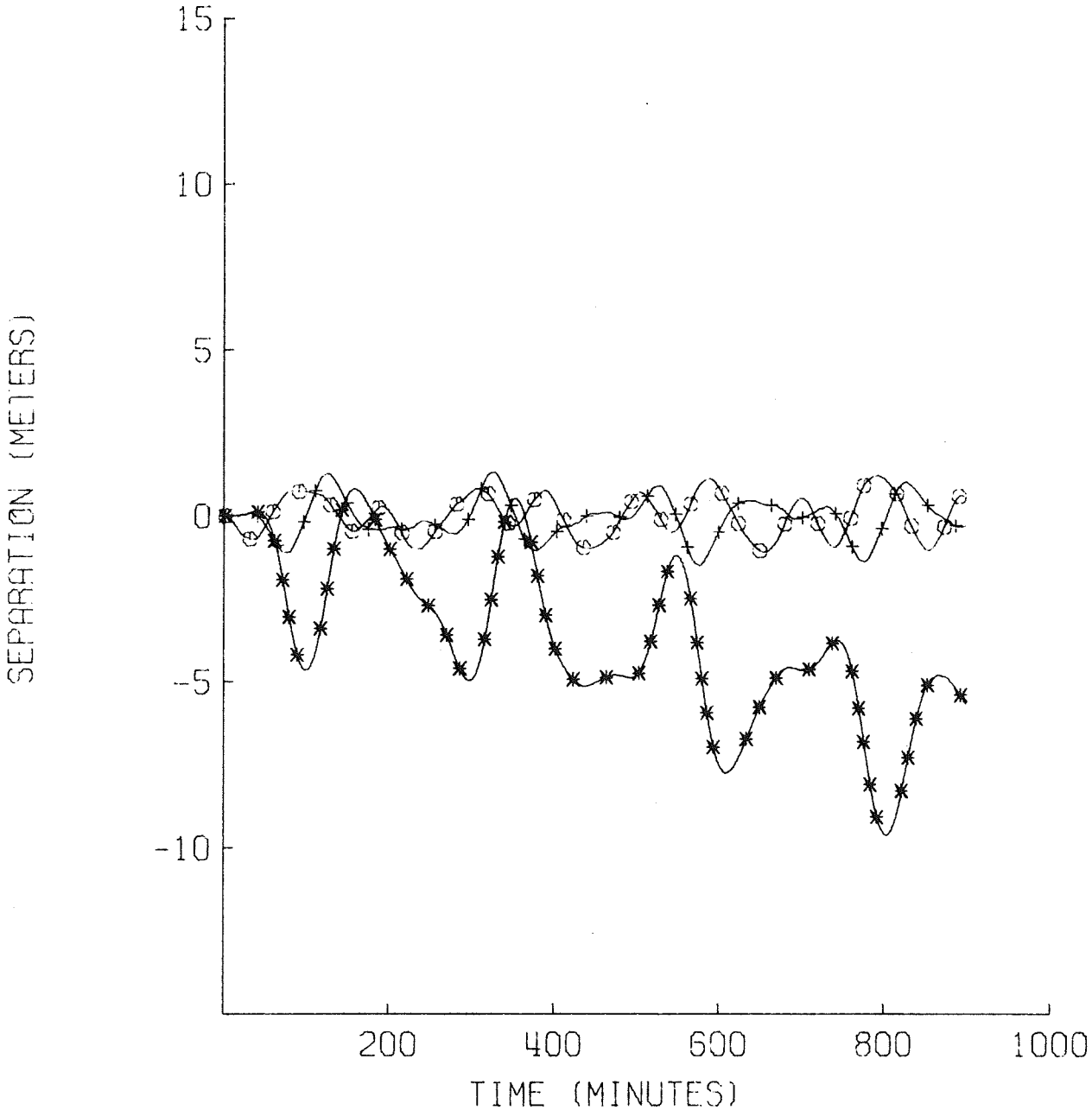
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(12 ,8) = .0390
FACTØR USED IS 1.000000

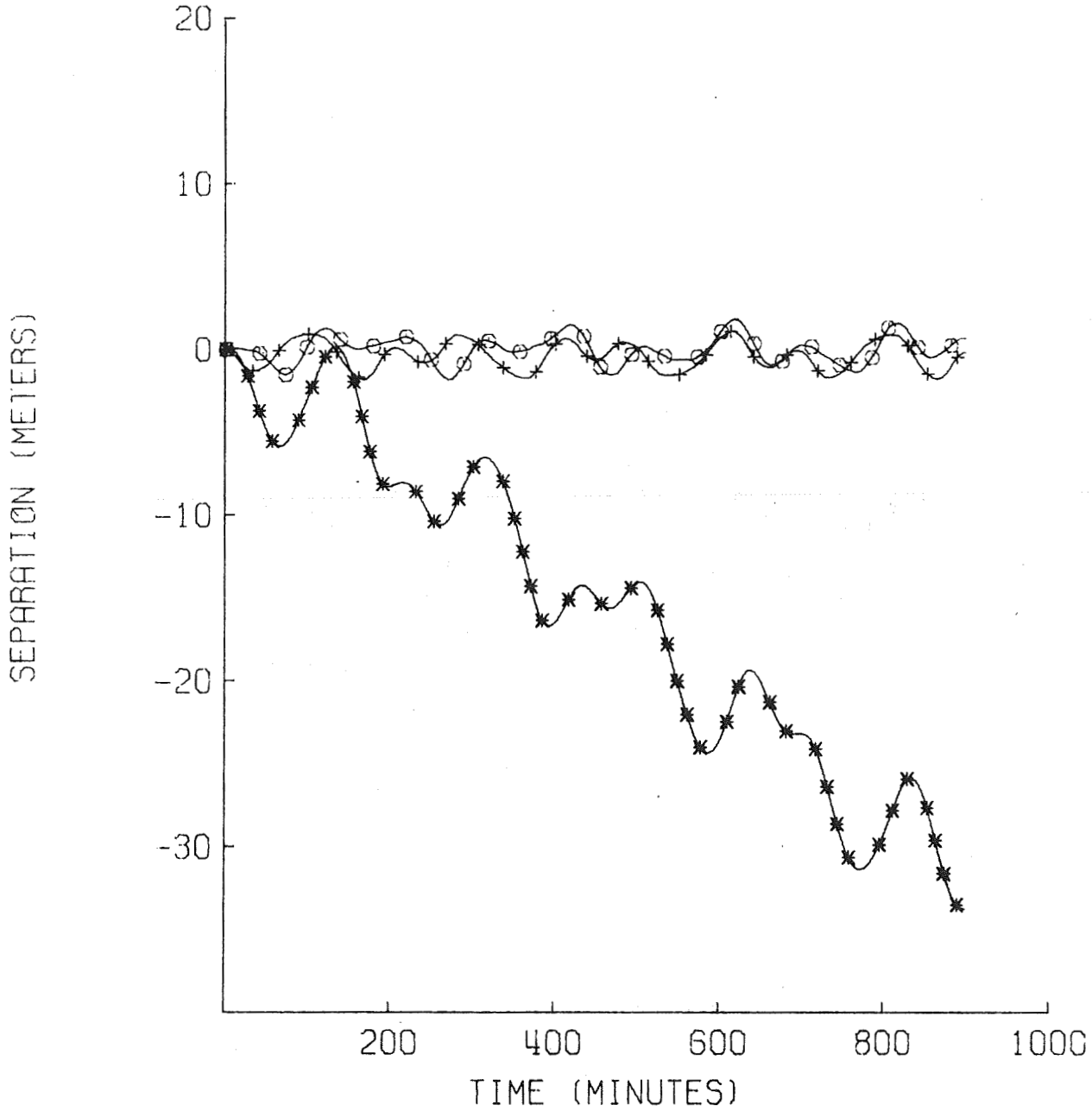
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(12 , 8) = .0543
FACTØR USED IS 1.000000

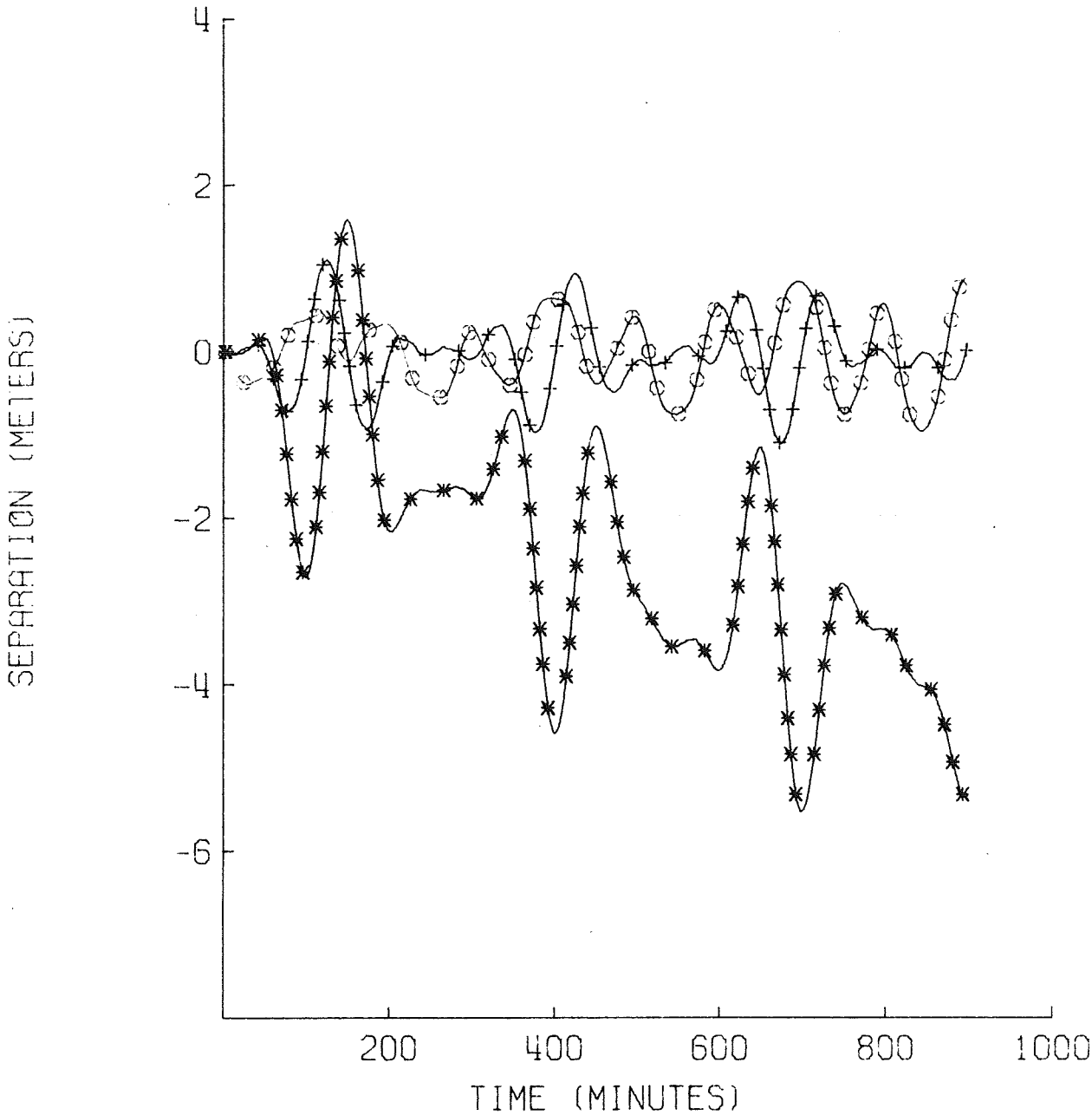
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7130.6535

RUN FØR C(12 ,9) = -.0275
FACTØR USED IS 1.000000

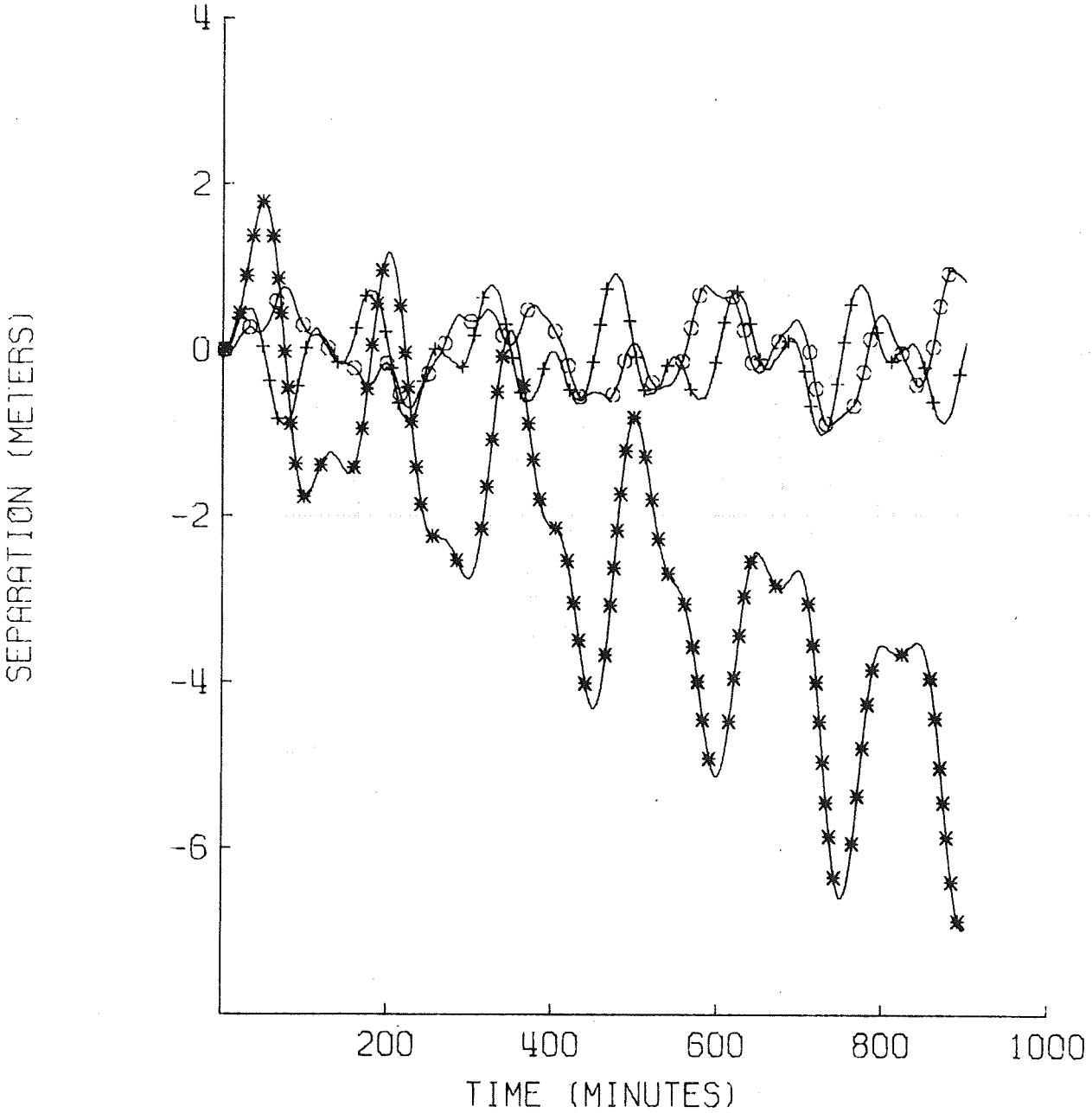
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊕) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(12 , 9) = .0409
FACTØR USED IS 1.000000

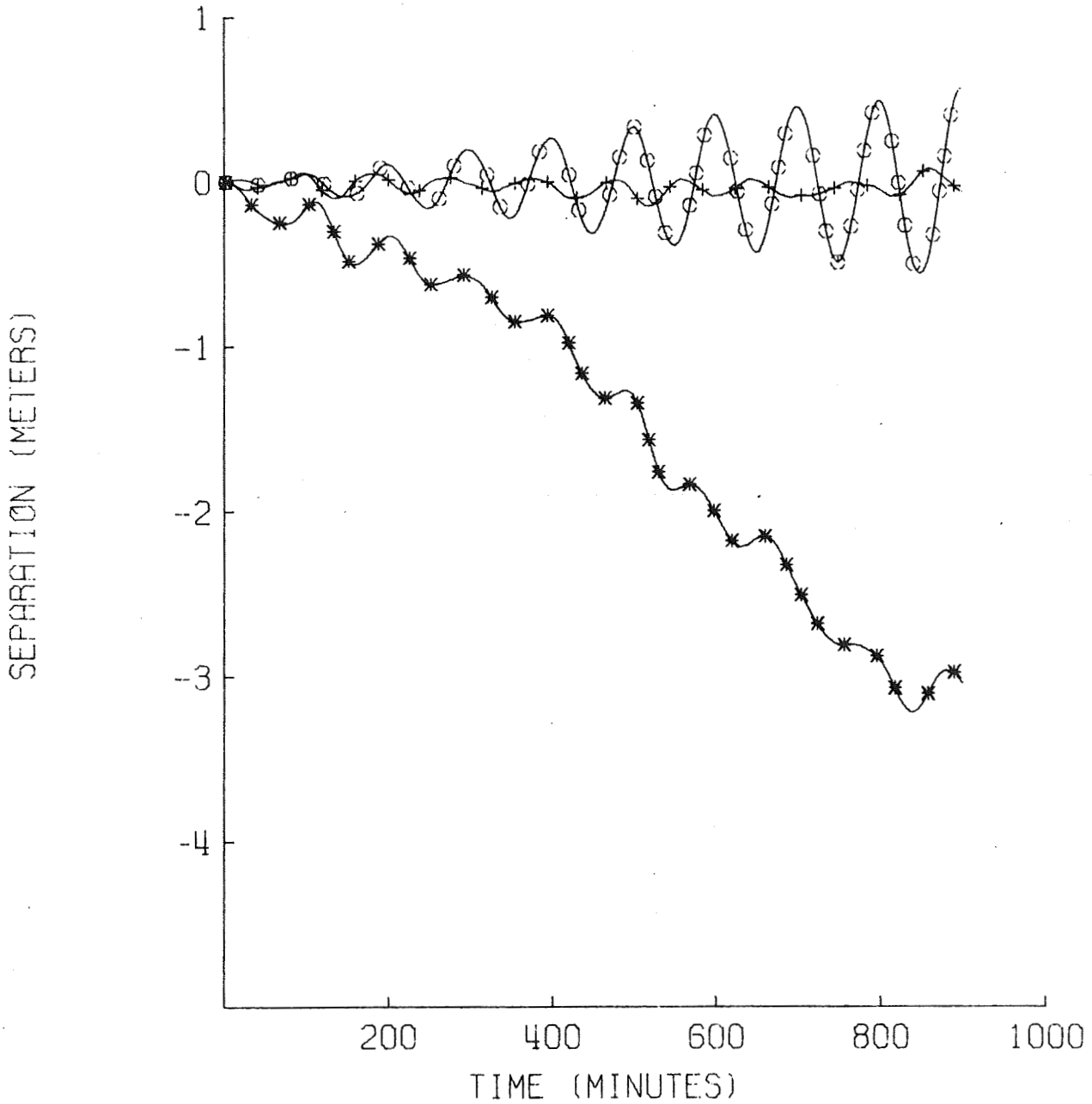
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(12 , 10) = -.0025
FACTØR USED IS 1.000000

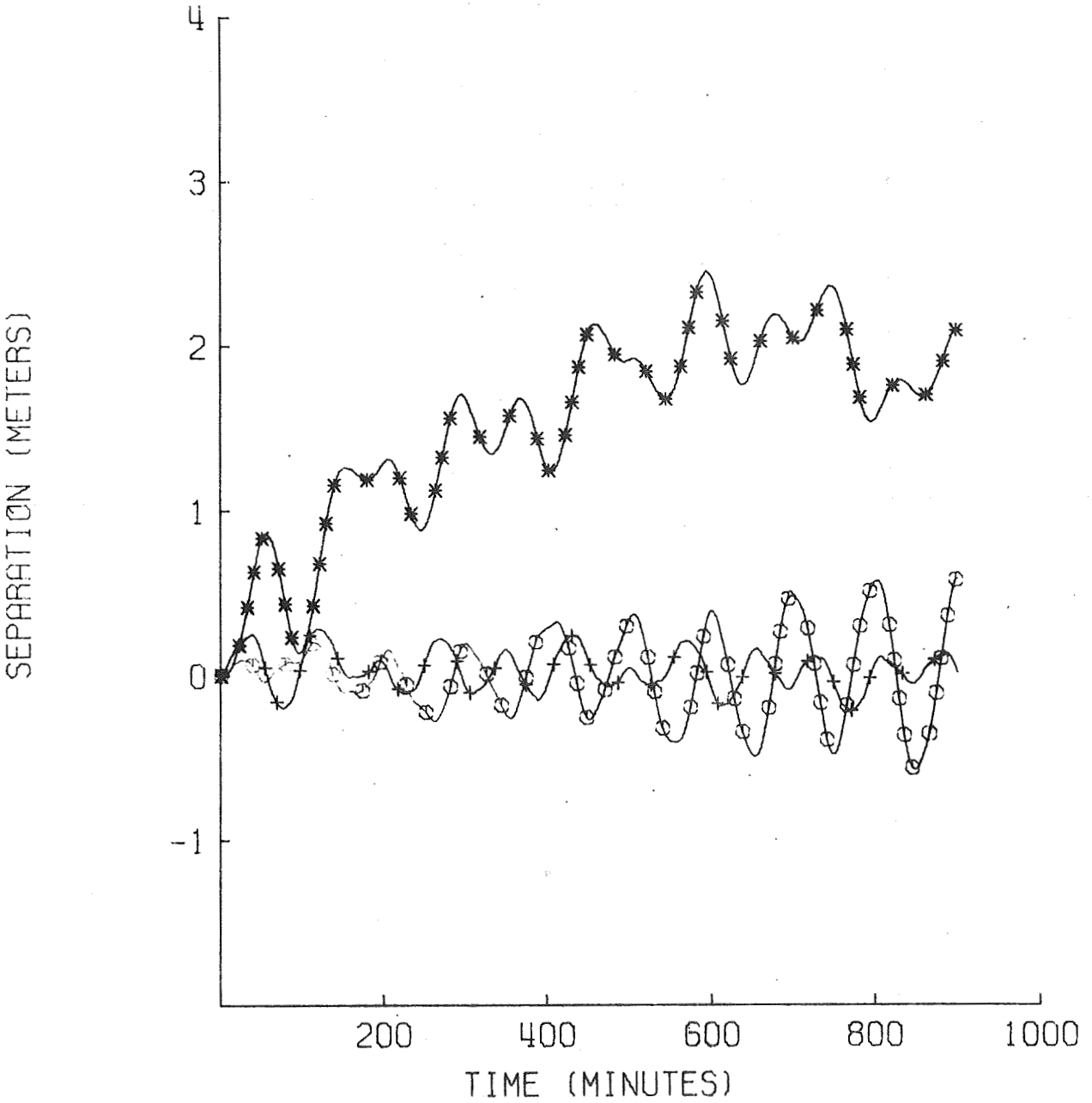
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(12 , 10) = -.0129
FACTØR USED IS 1.000000

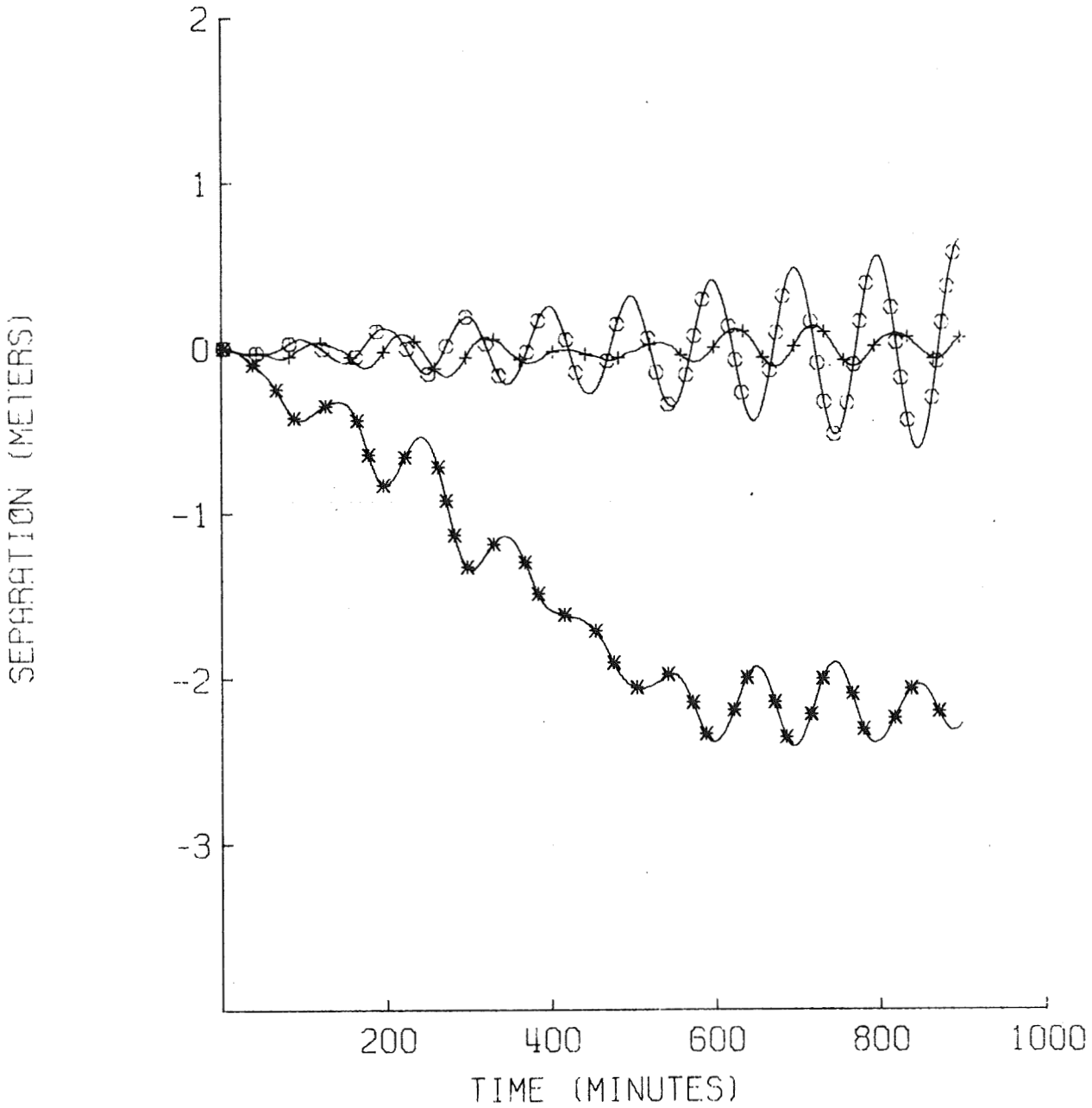
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(12 , 11) = -.0030
FACTØR USED IS 1.000000

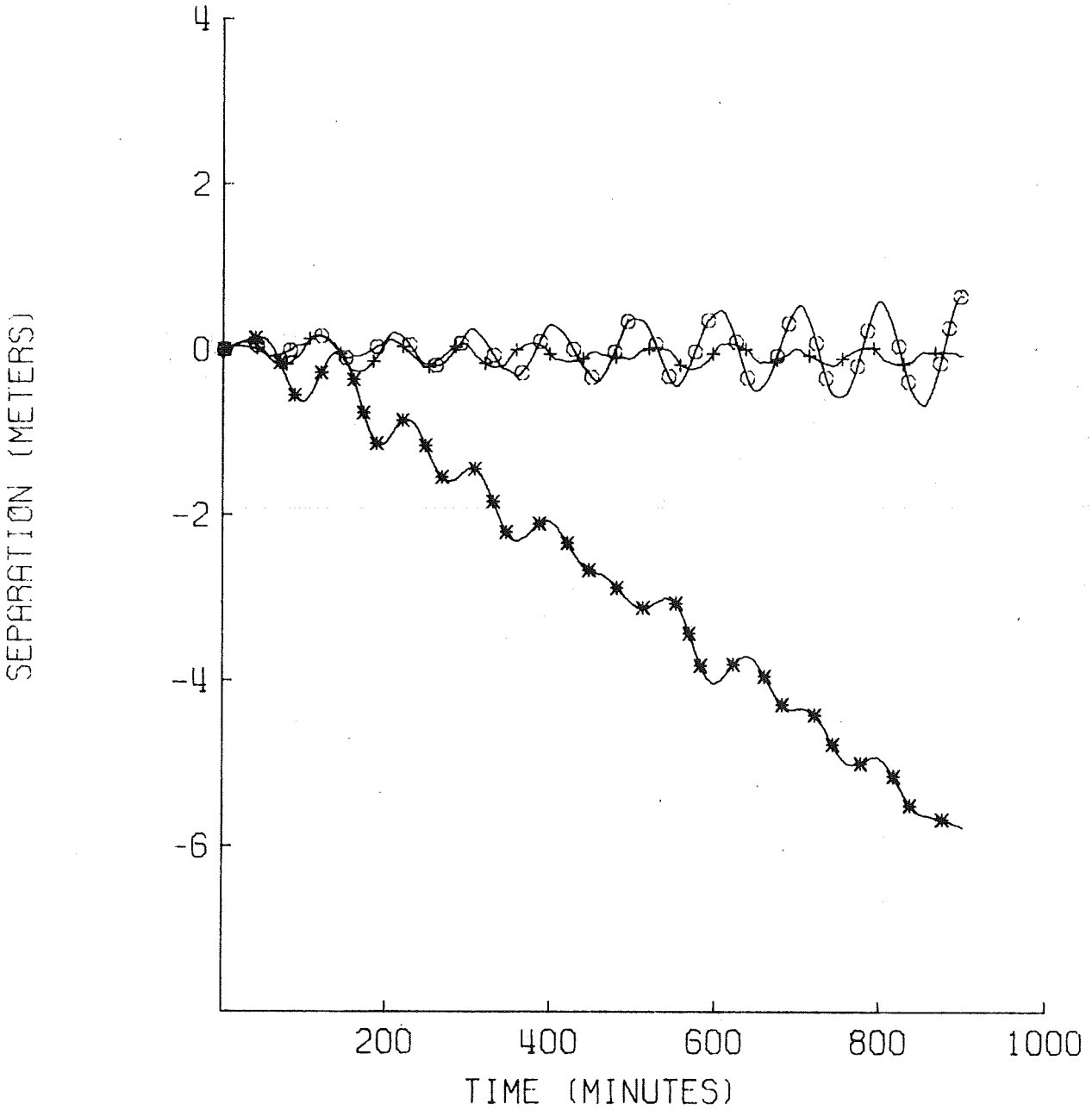
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⦶) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(12 , 11) = .0153
FACTOR USED IS 1.000000

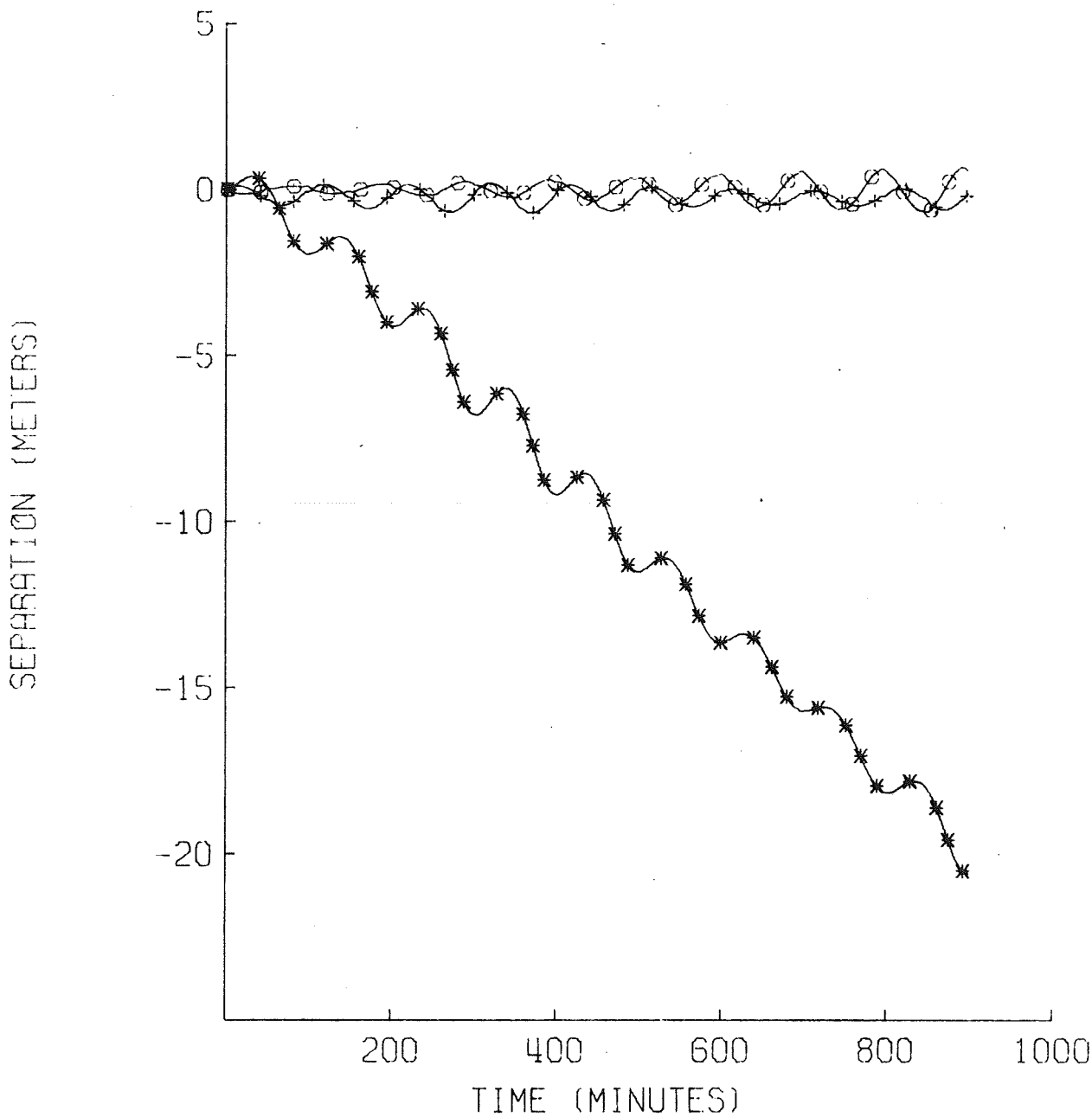
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(12 , 12) = .0303
FACTØR USED IS 1.000000

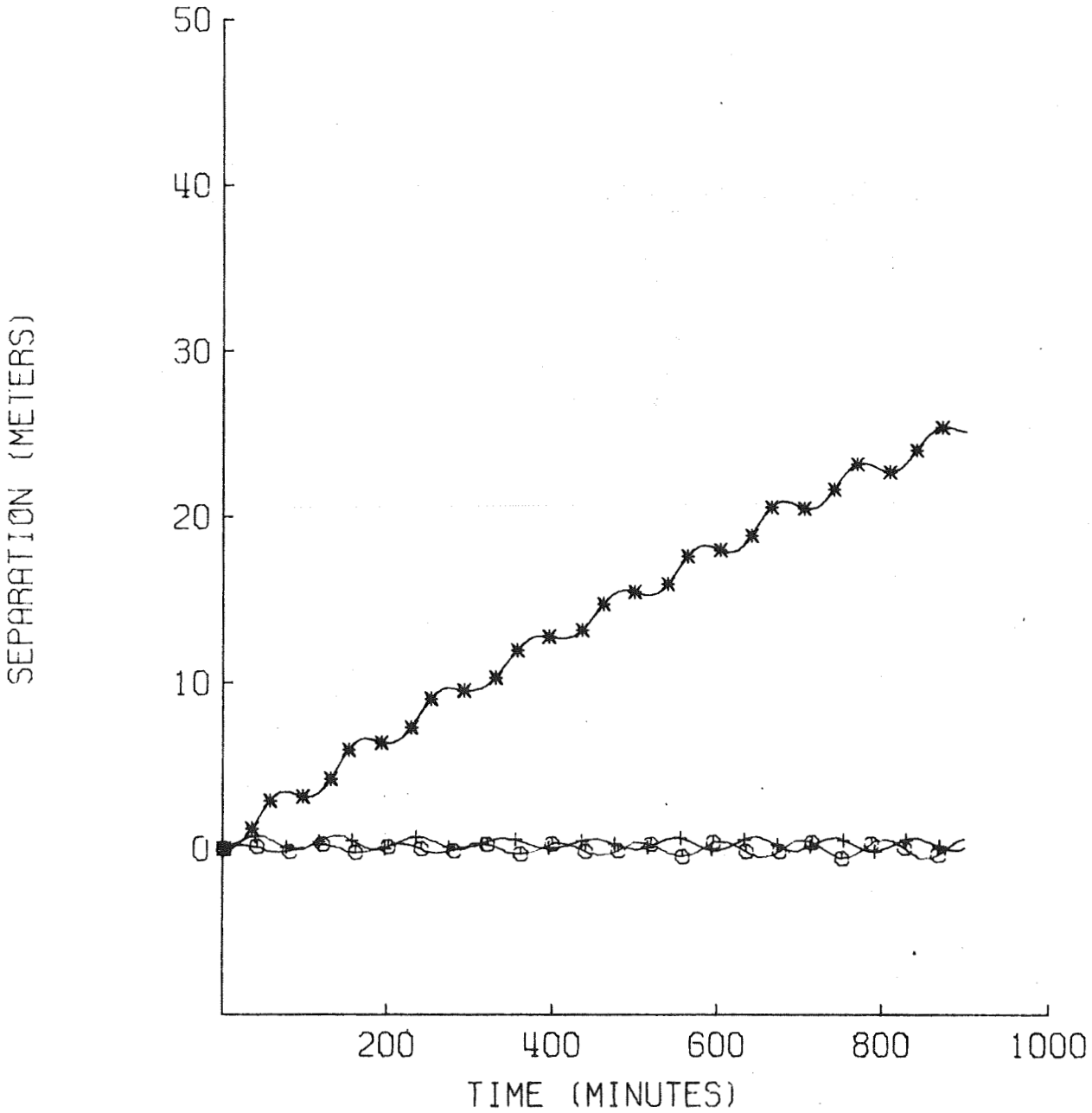
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊕) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(12 , 12) = -.0332
FACTØR USED IS 1.000000

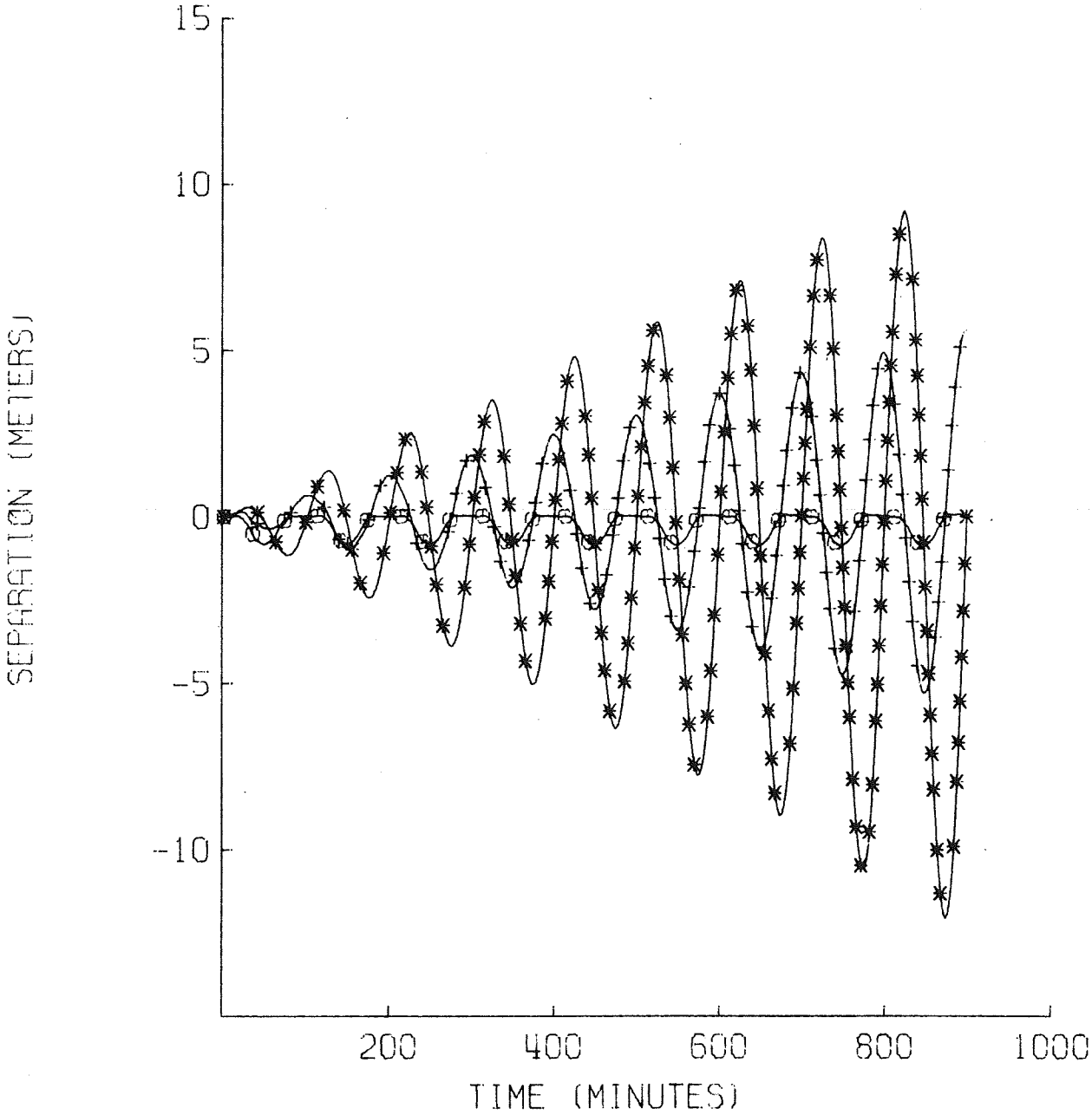
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(13 ,0) = .0425
FACTØR USED IS 1.000000

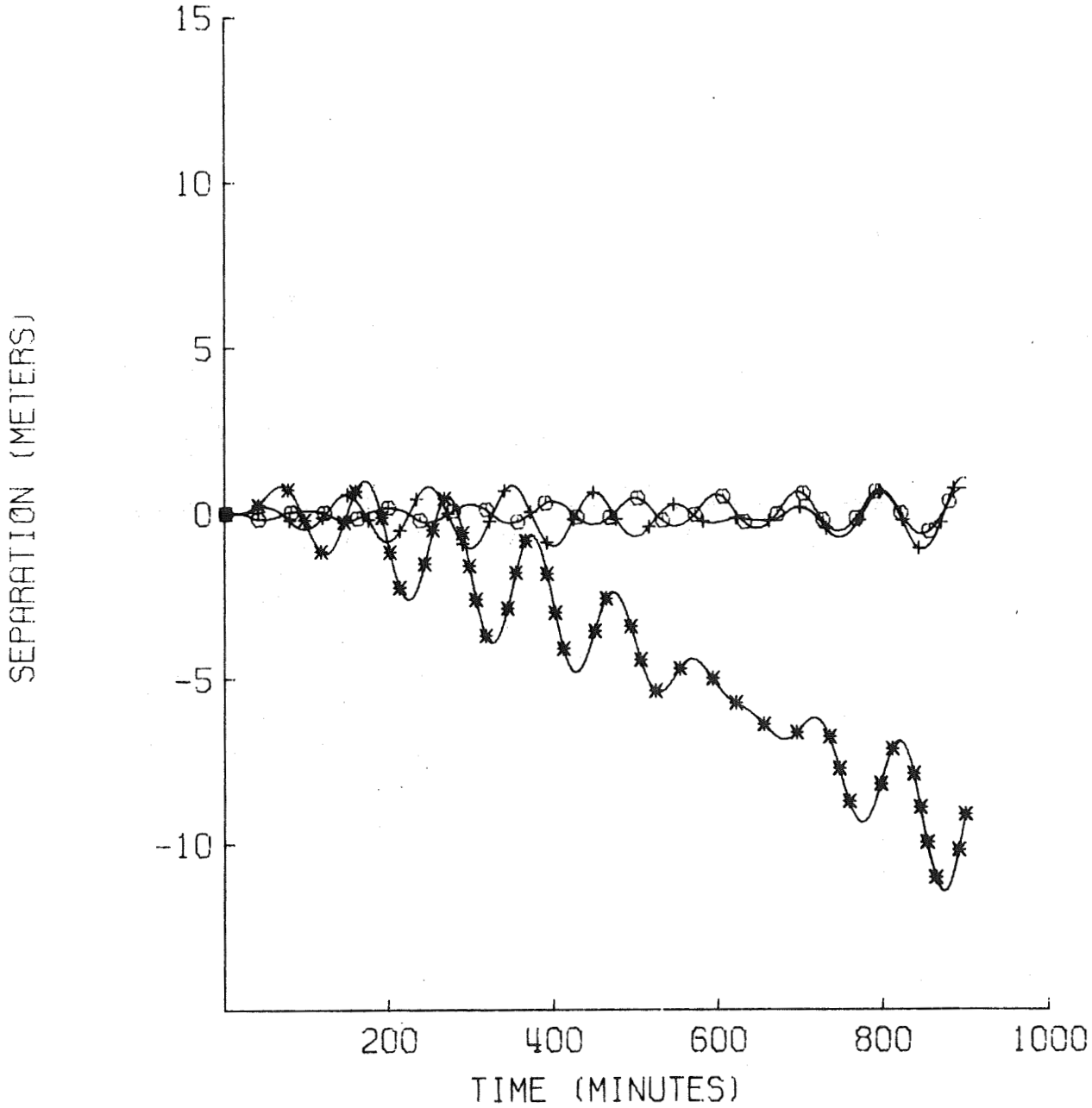
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊕) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(13 , 1) = -.0339
FACTØR USED IS 1.000000

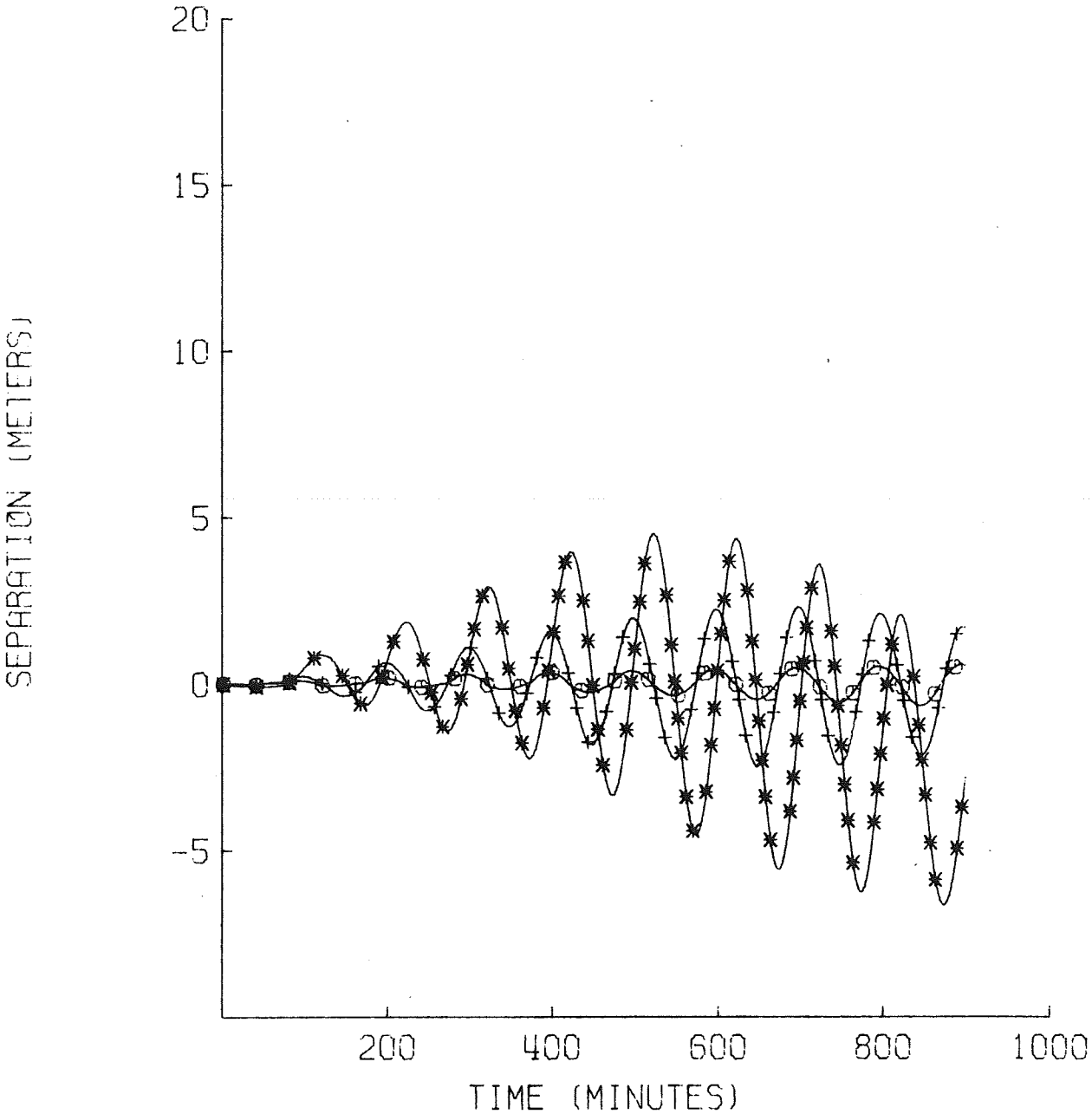
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊕) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.0535

RUN FØR S(13 , 1) = -.0345
FACTØR USED IS 1.000000

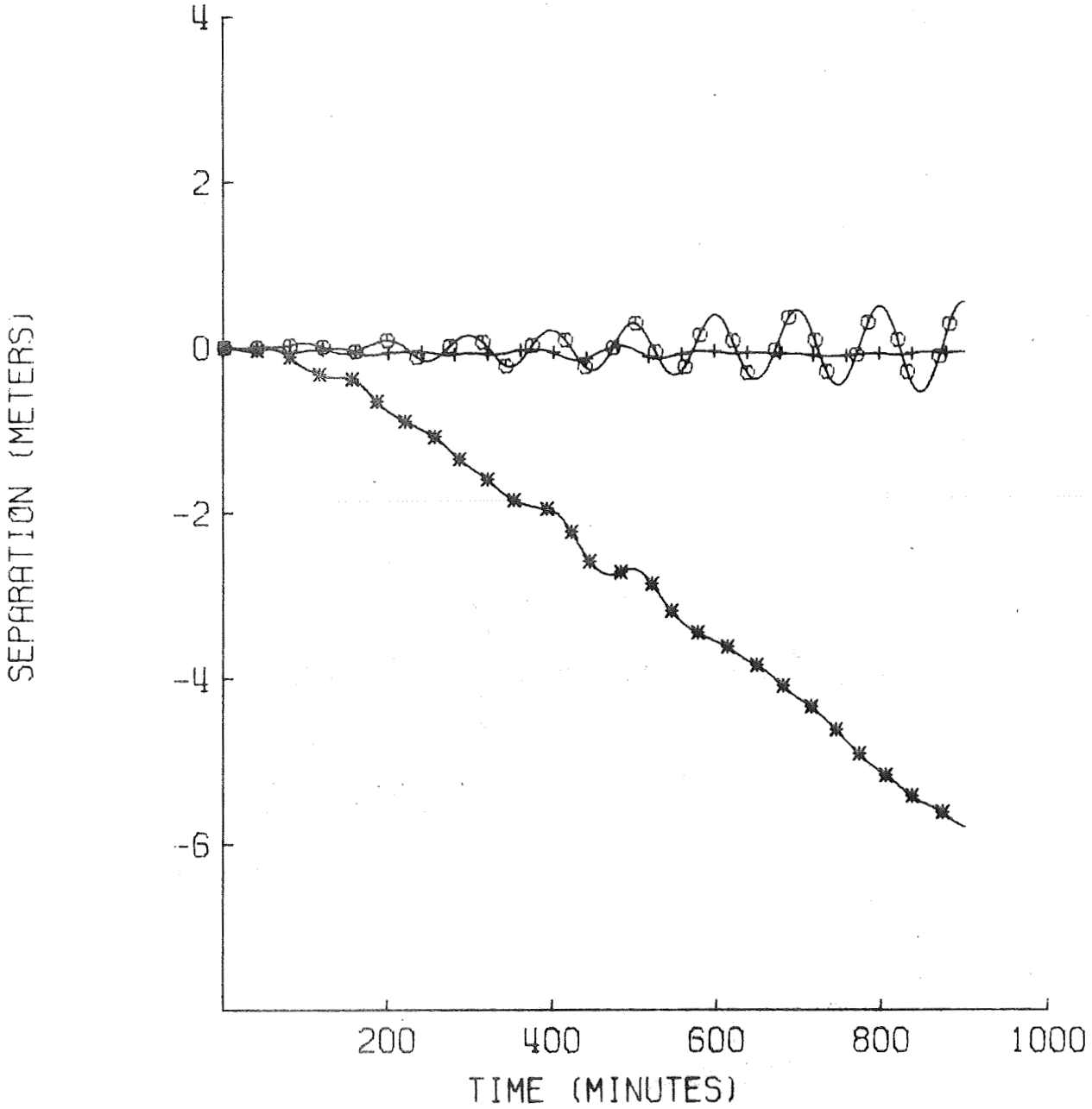
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊕) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(13,2) = .0056
FACTOR USED IS 1.000000

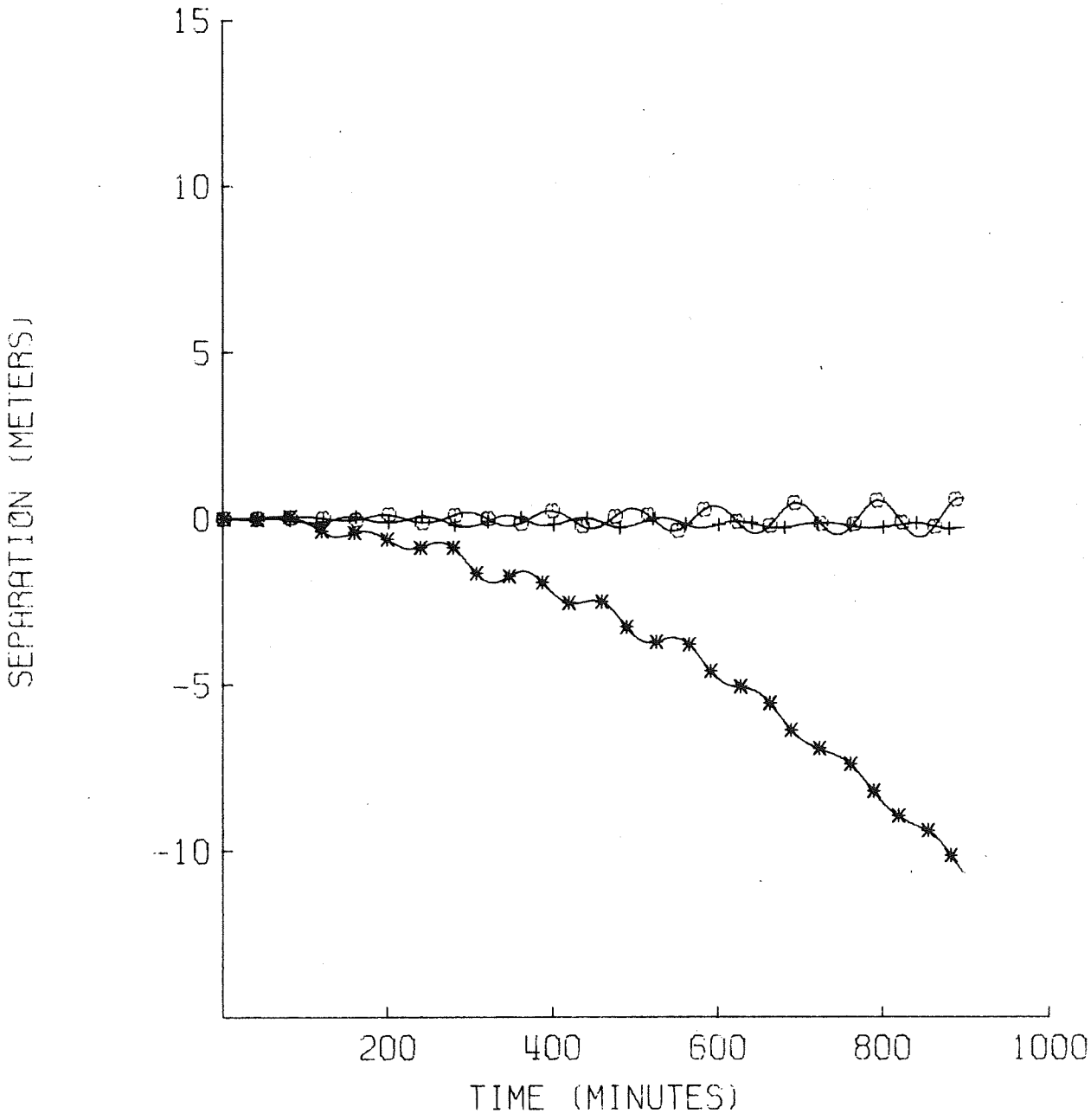
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(13 ,2) = -.0033
FACTOR USED IS 1.000000

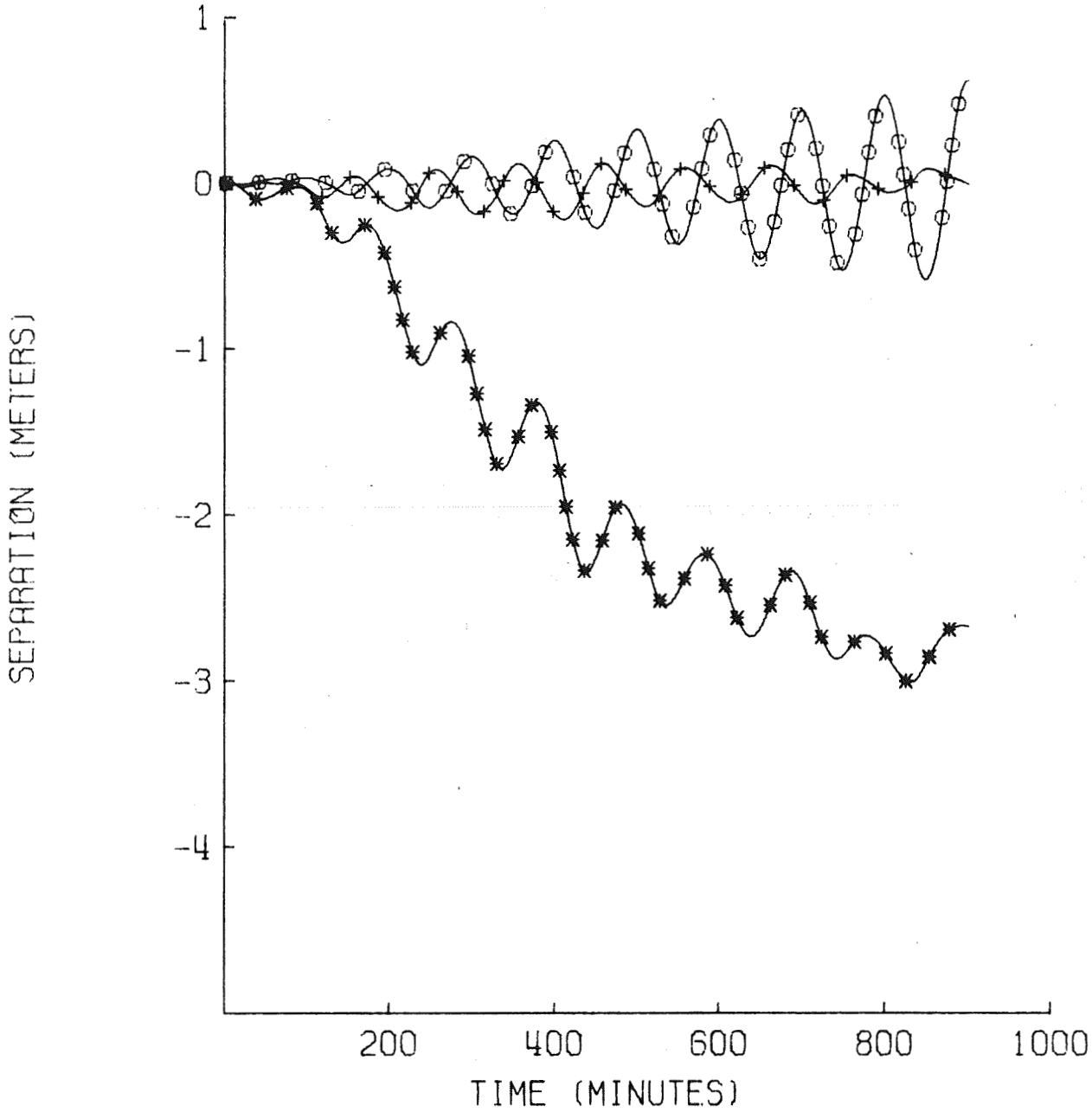
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊕) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(13 , 3) = -.0029
FACTØR USED IS 1.000000

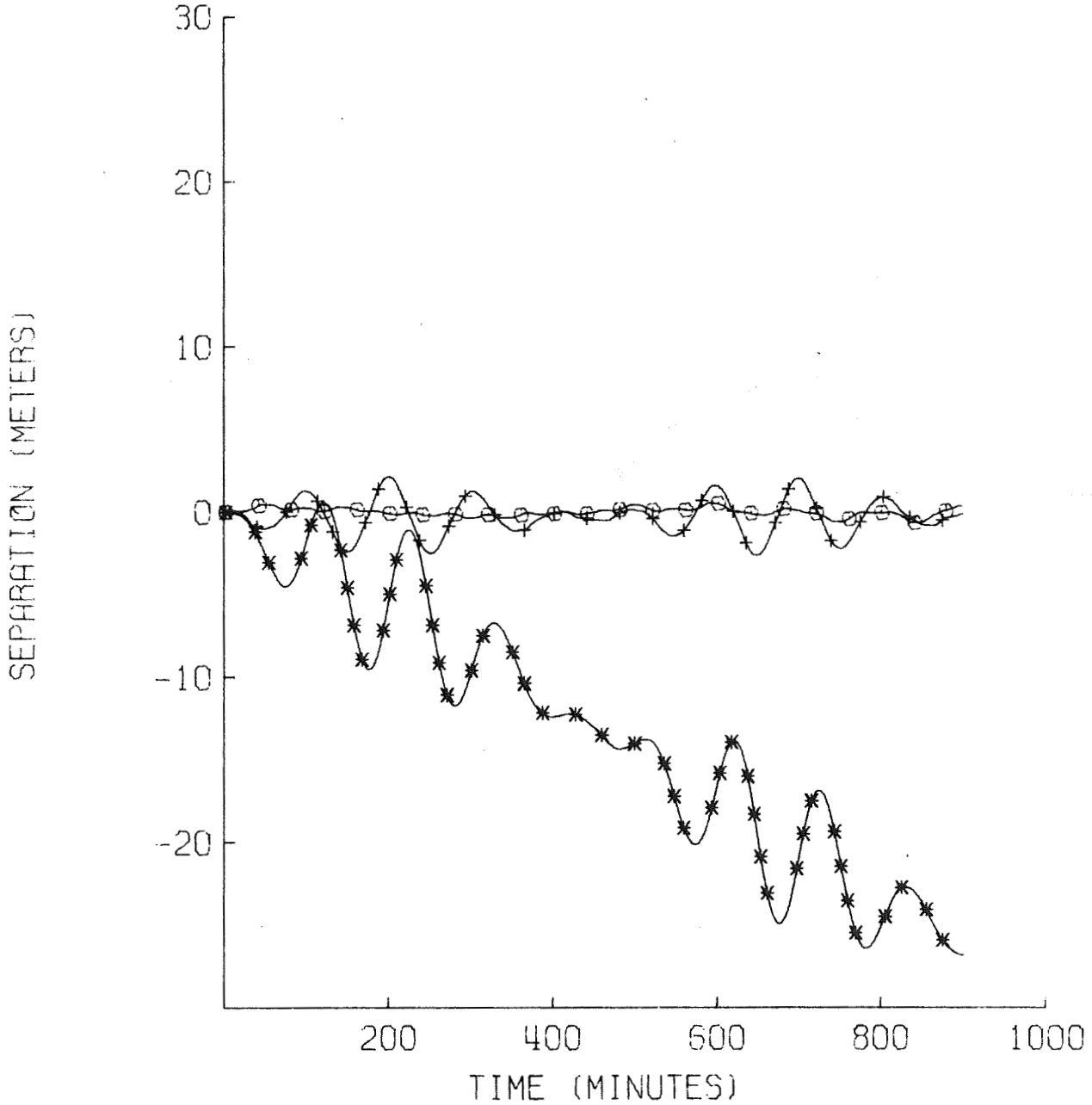
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊕) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(13 , 3) = .0770
FACTOR USED IS 1.000000

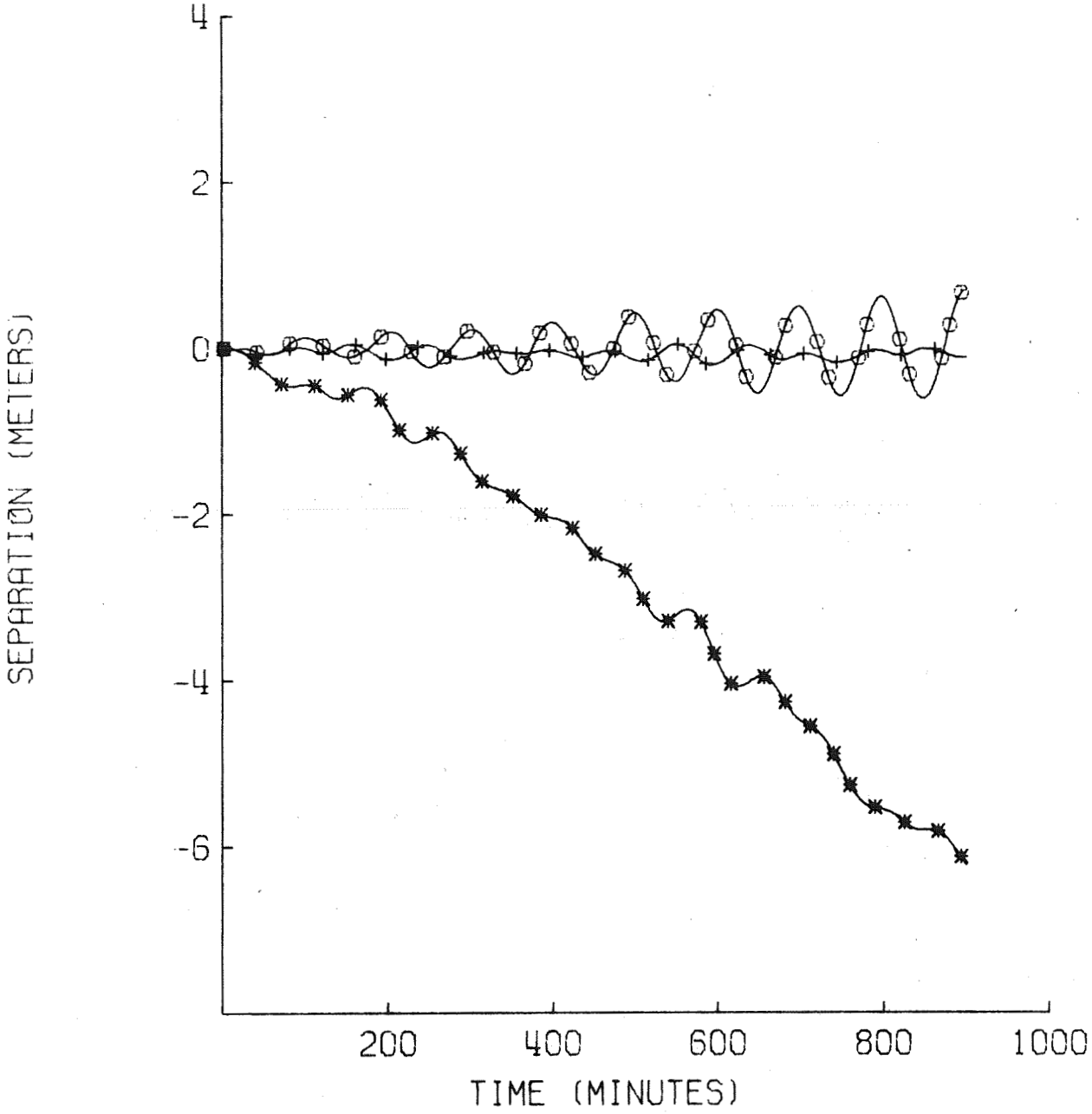
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊖) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(13,4) = .0073
FACTØR USED IS 1.000000

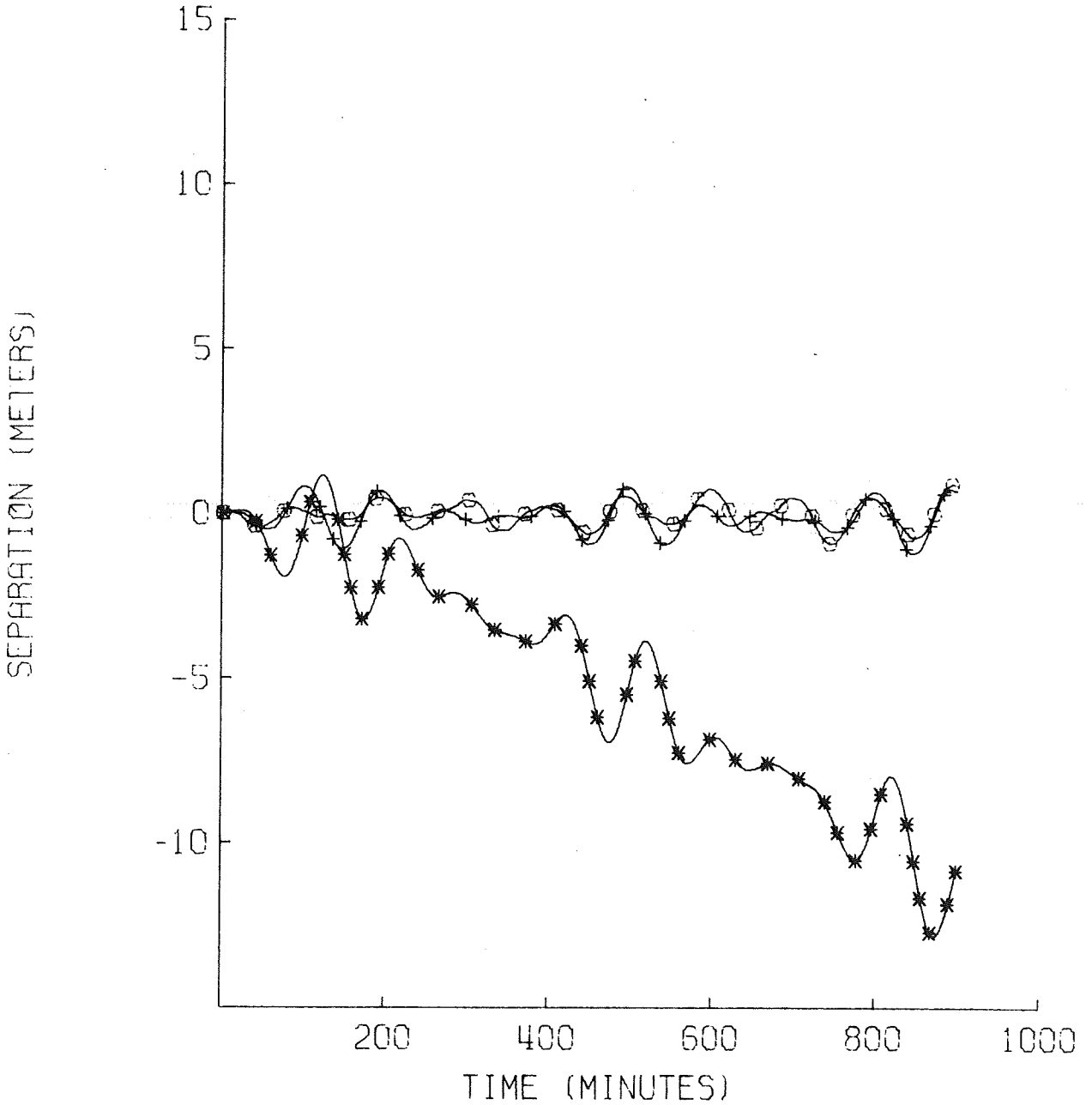
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊘) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(13 , 4) = -.0420
FACTOR USED IS 1.000000

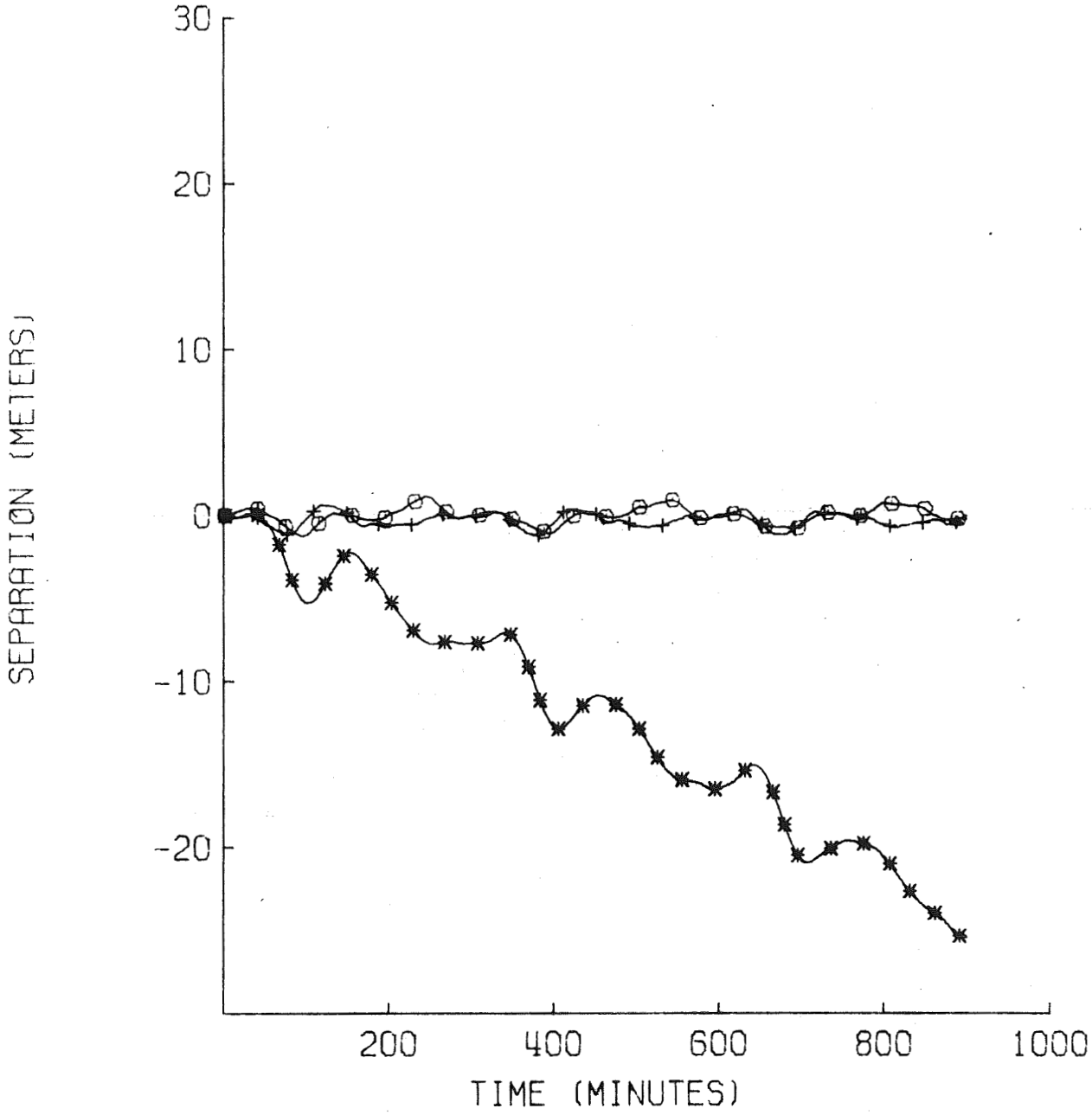
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊕) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(13 , 5) = .0778
FACTØR USED IS 1.000000

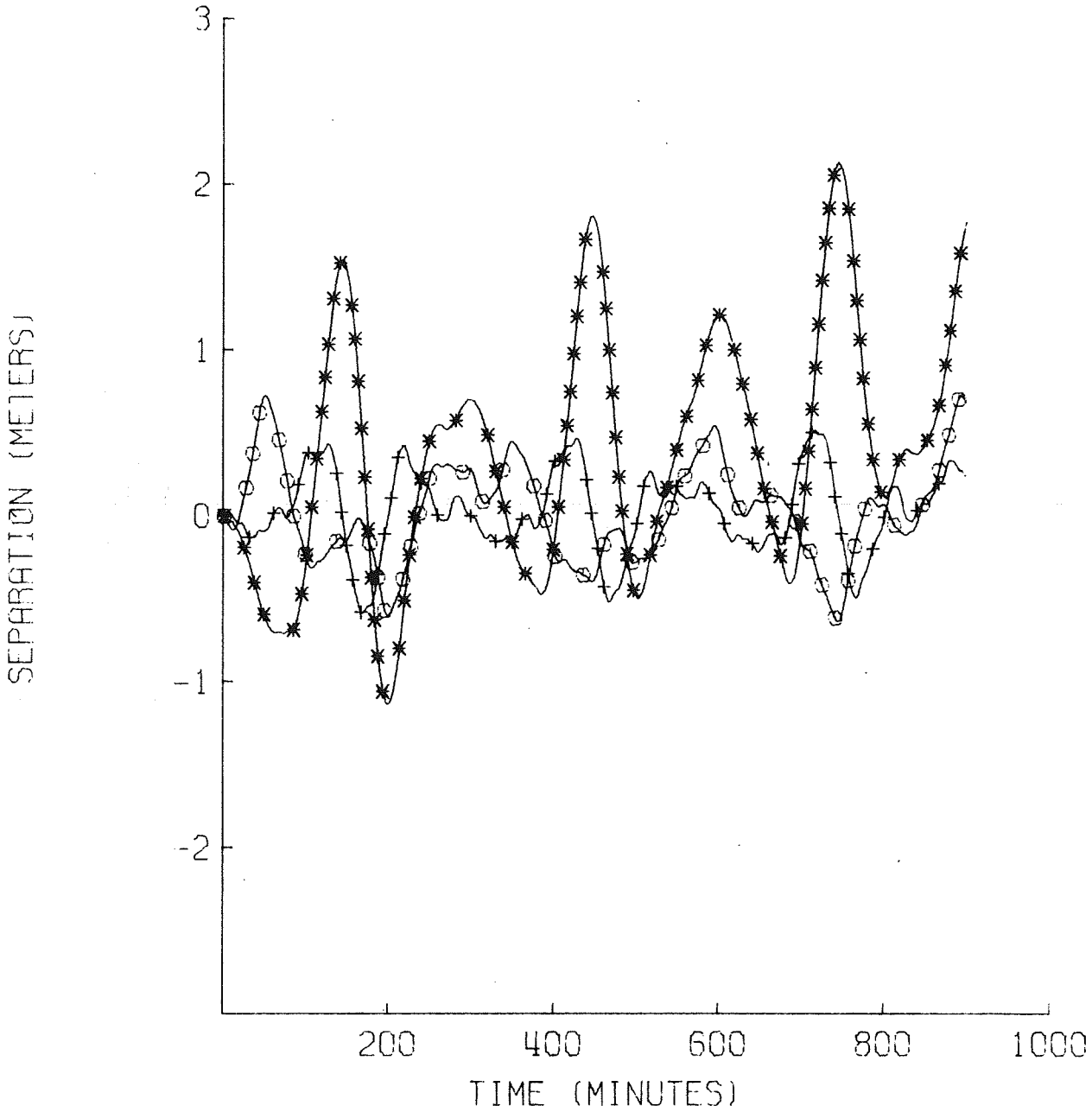
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(13 , 5) = -.0457
FACTOR USED IS 1.000000

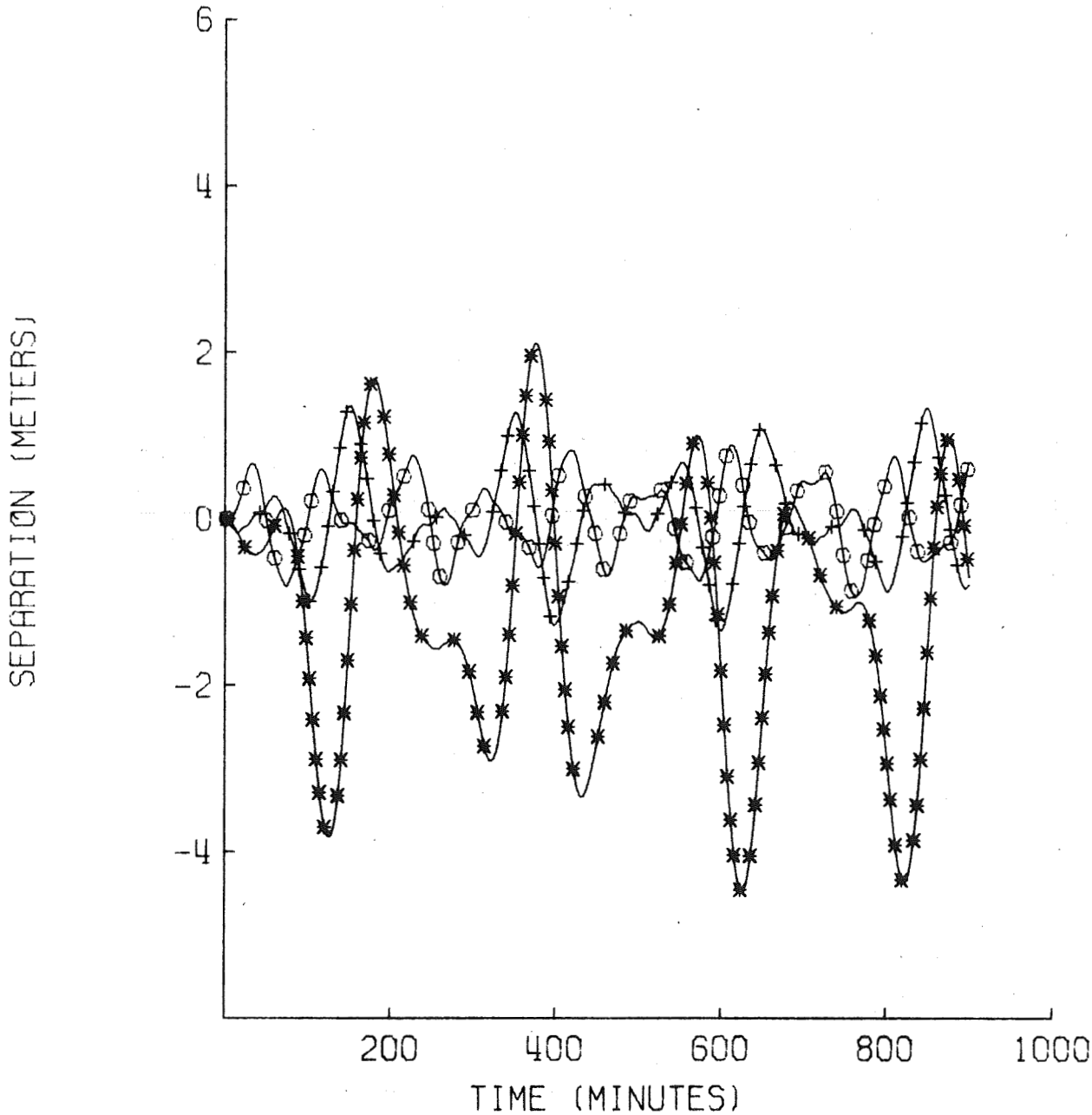
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊙) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(13 , 6) = -.0559
FACTØR USED IS 1.000000

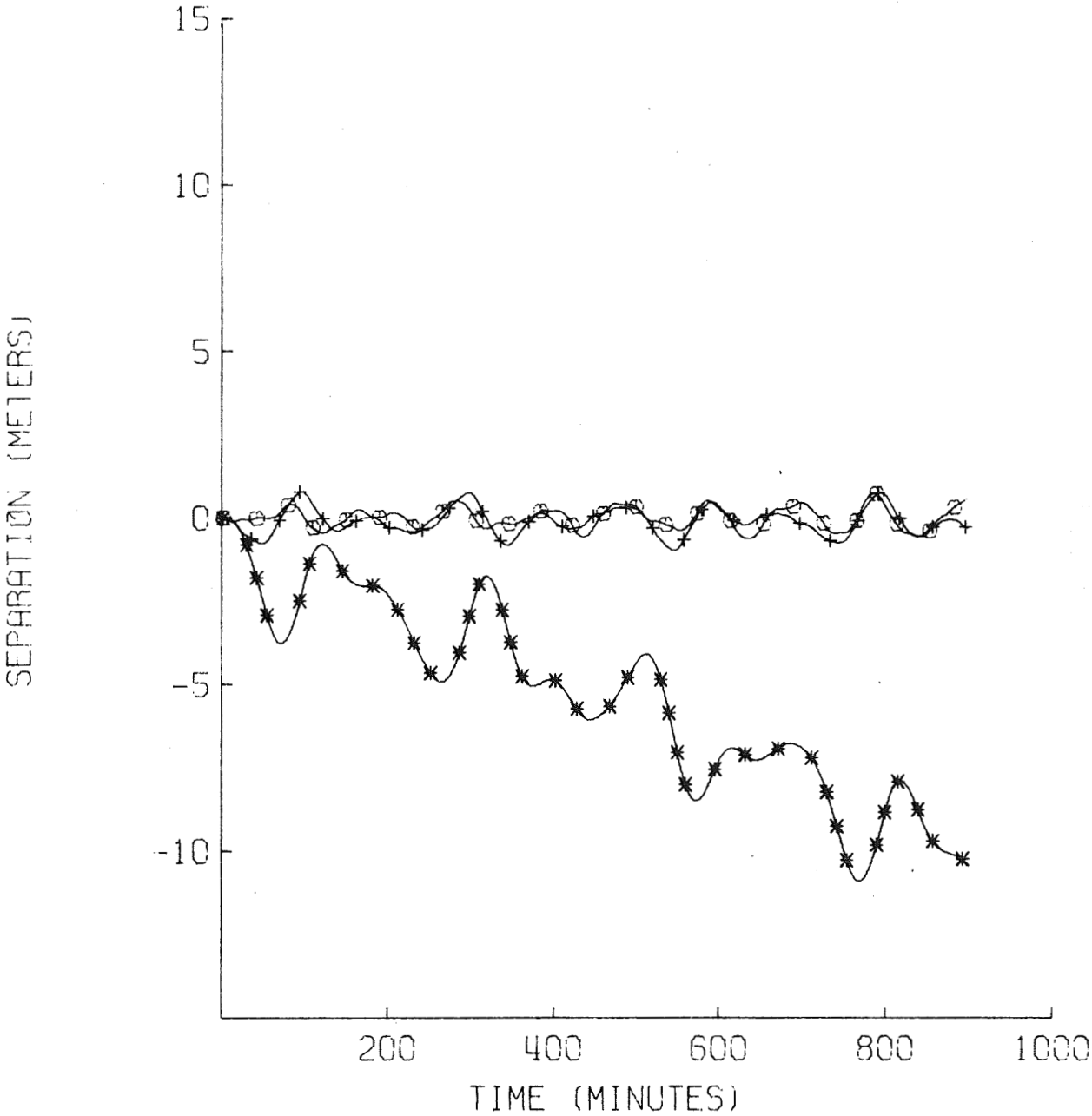
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(13 , 6) = .0419
FACTOR USED IS 1.000000

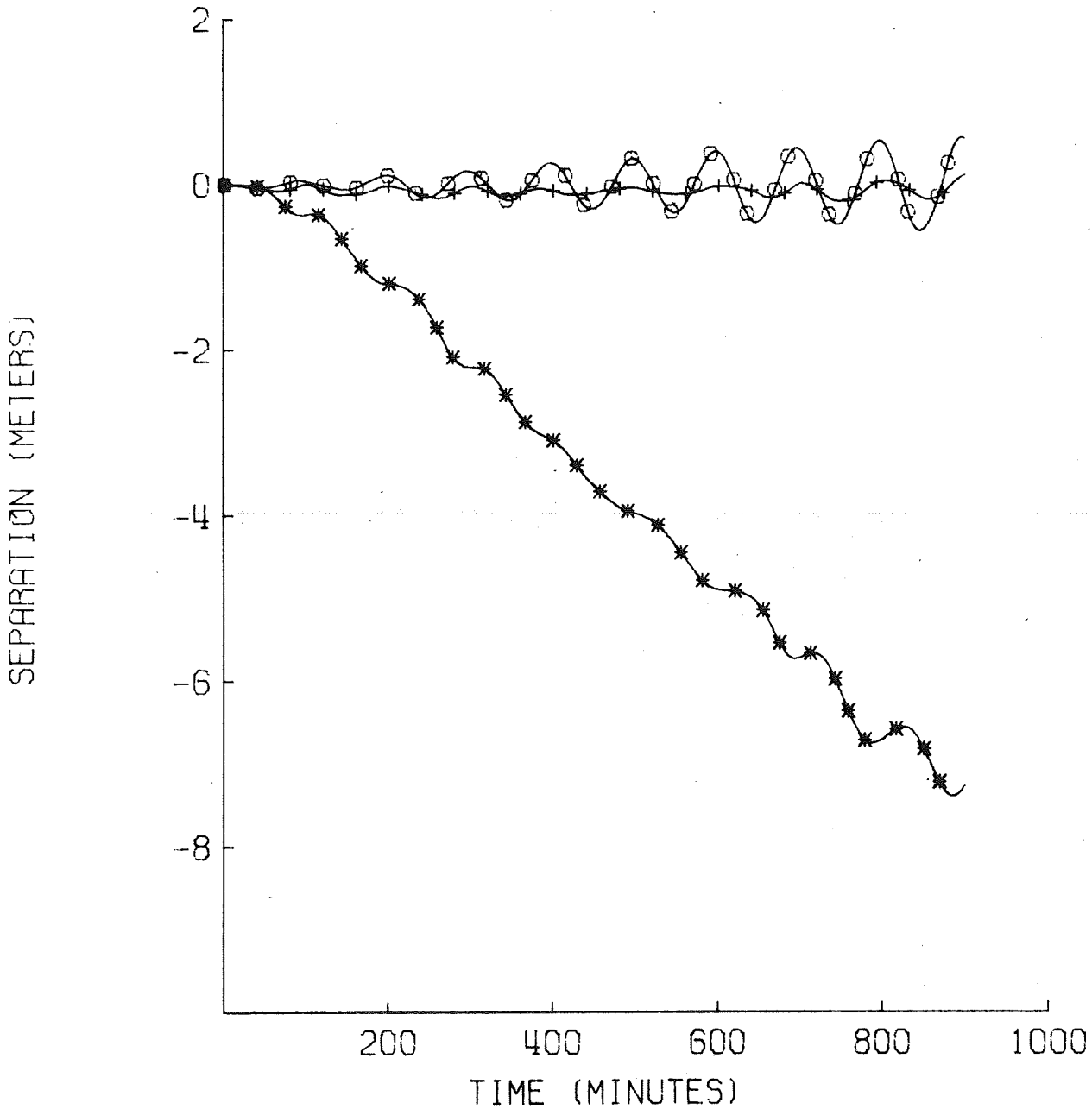
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊕) BI-NORMAL CROSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(13,7) = -.0014
FACTOR USED IS 1.000000

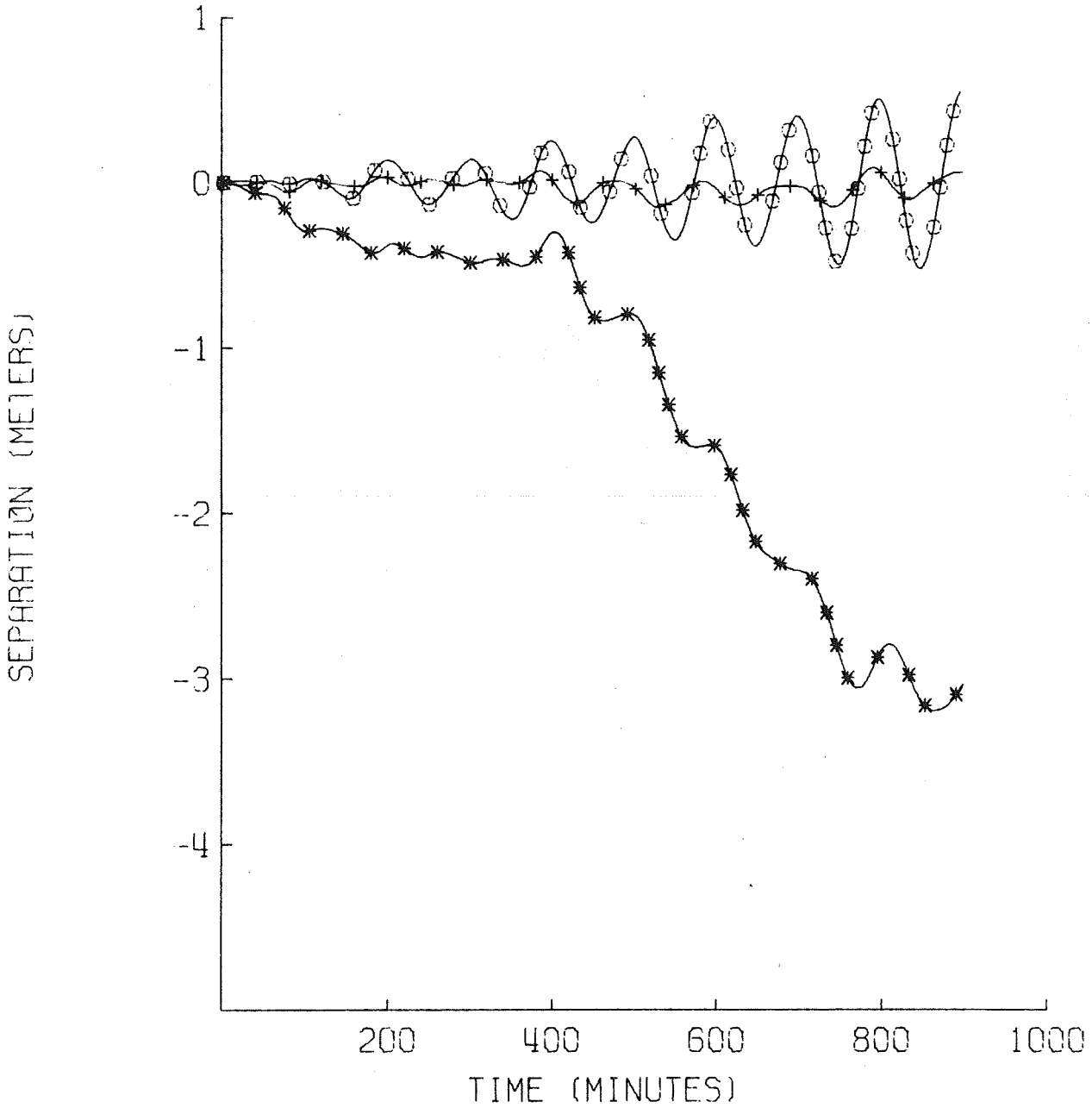
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(13 , 7) = .0026
FACTOR USED IS 1.000000

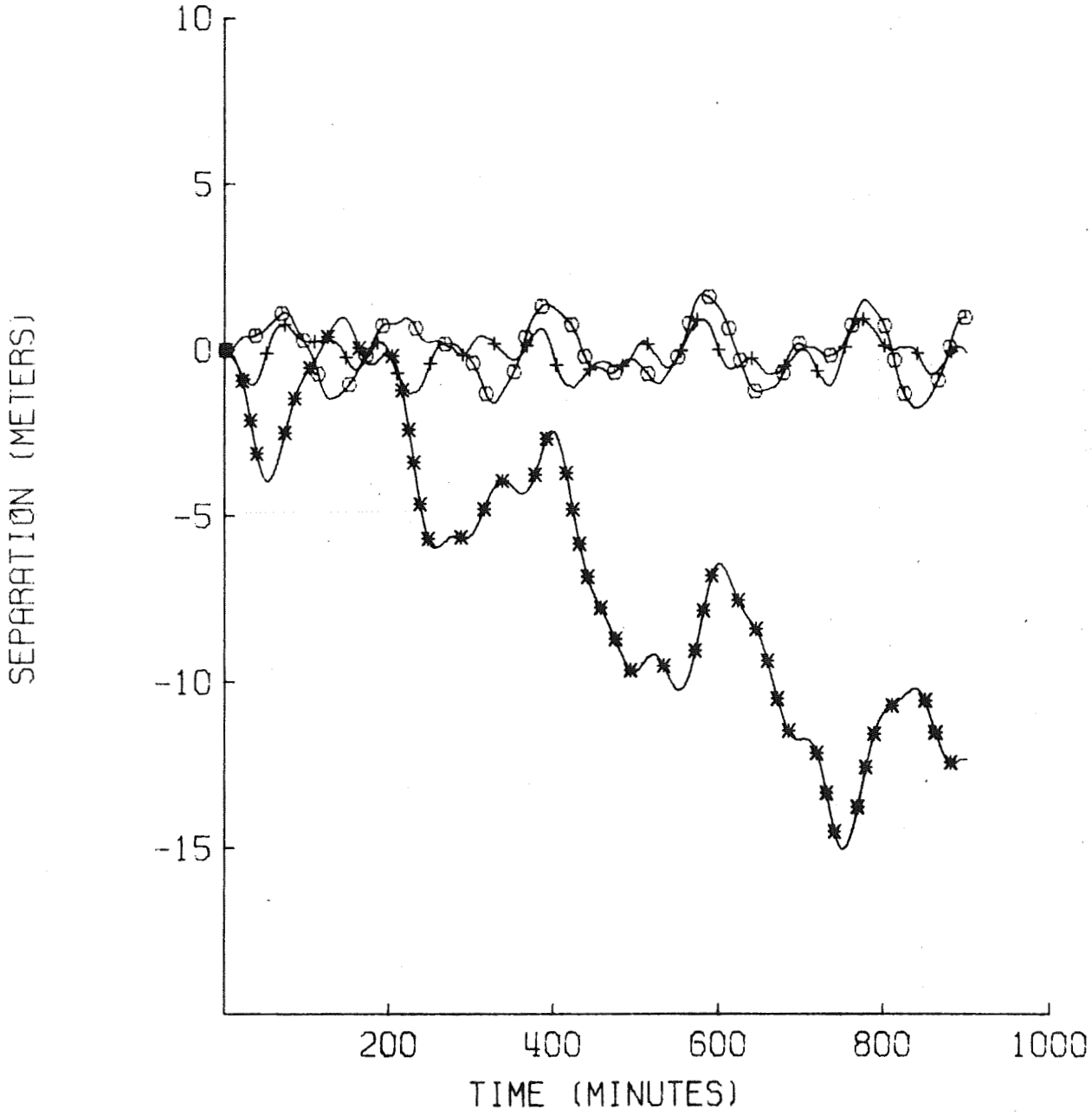
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊕) BI-NORMAL CROSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(13 ,8) = -.0717
FACTOR USED IS 1.000000

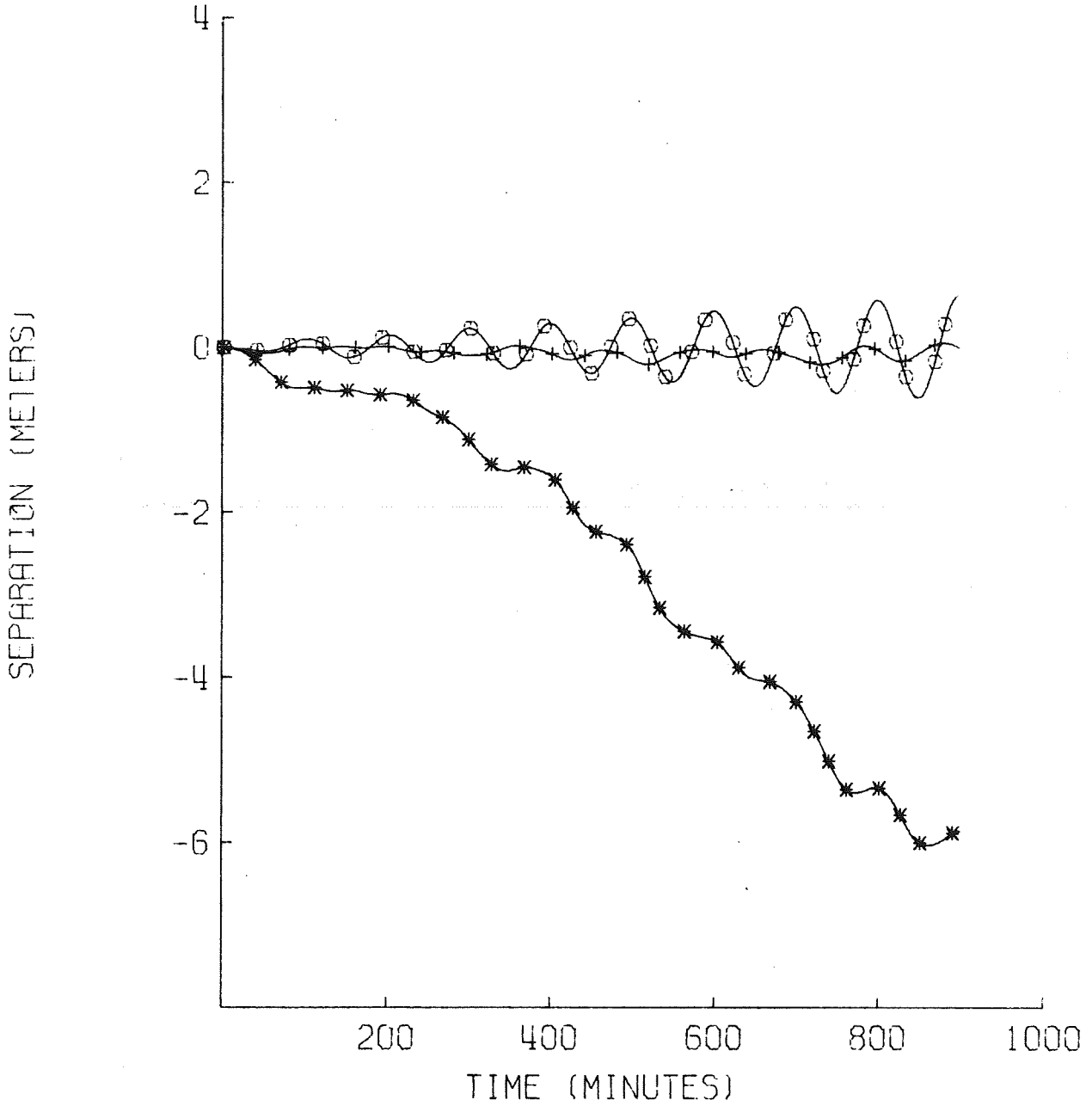
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊕) BI-NORMAL CROSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(13,8) = .0001
FACTOR USED IS 1.000000

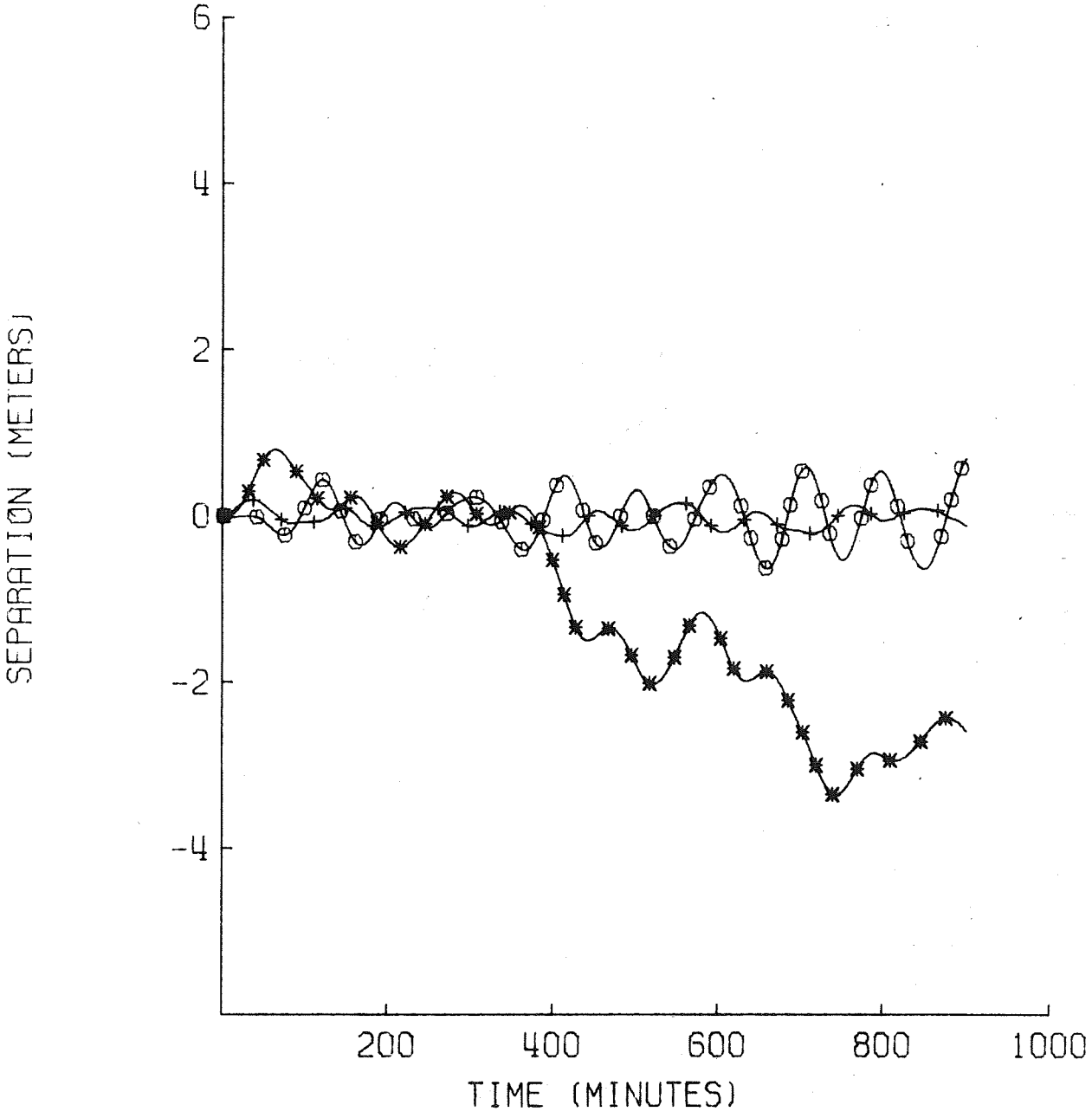
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(13 , 9) = -.0093
FACTØR USED IS 1.000000

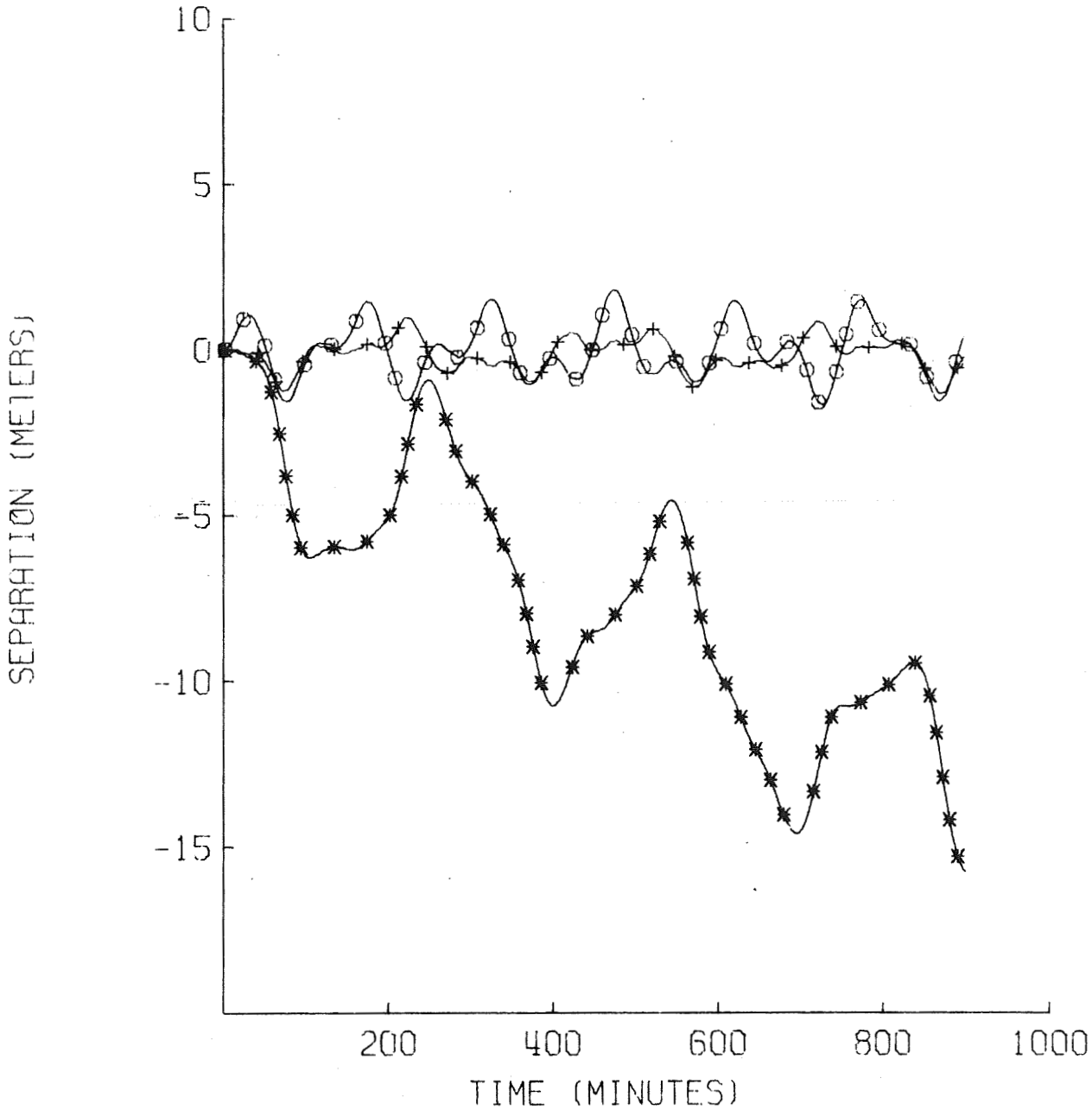
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(13 , 9) = .0653
FACTOR USED IS 1.000000

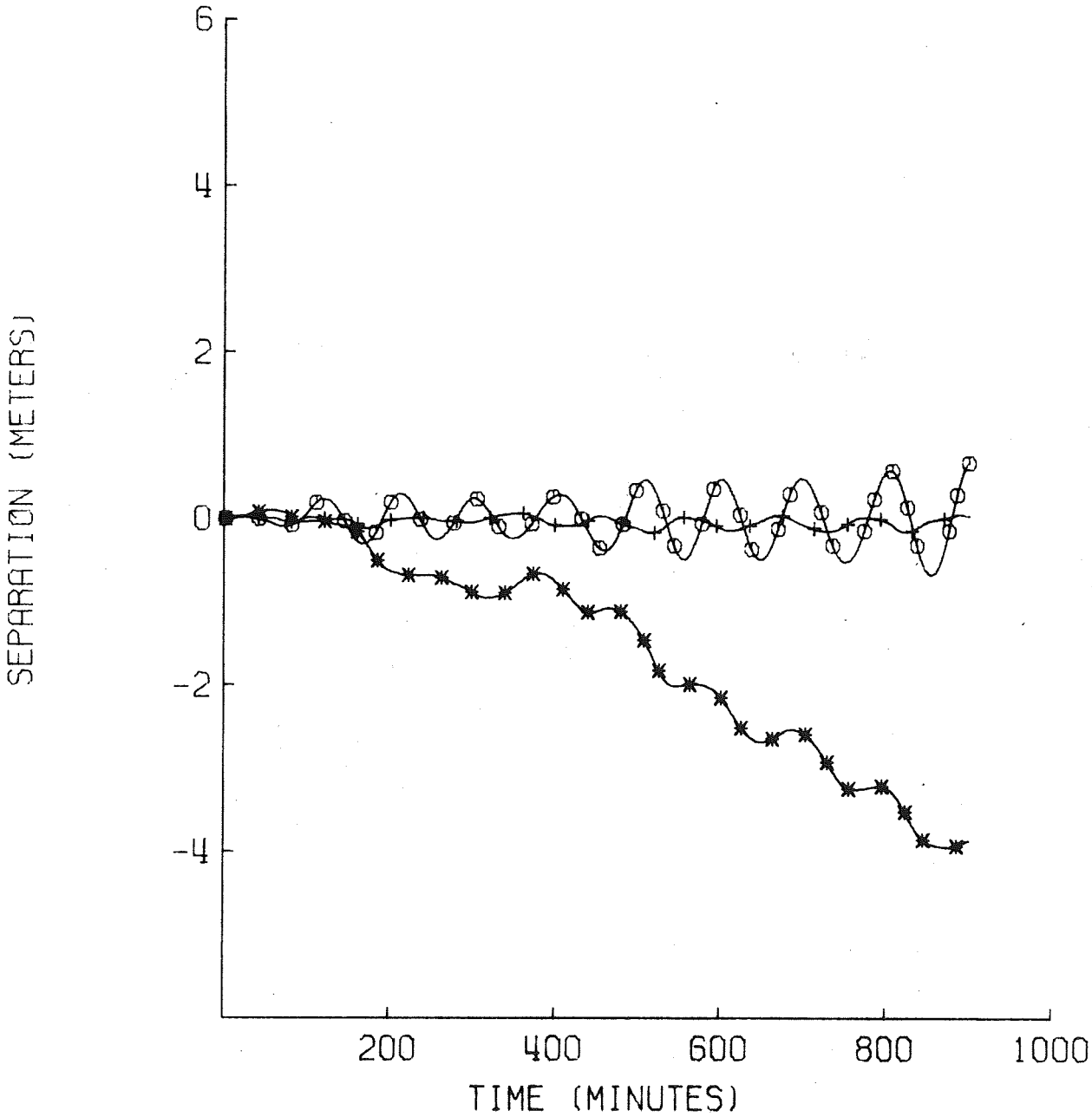
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊙) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(13 , 10) = .0052
FACTØR USED IS 1.000000

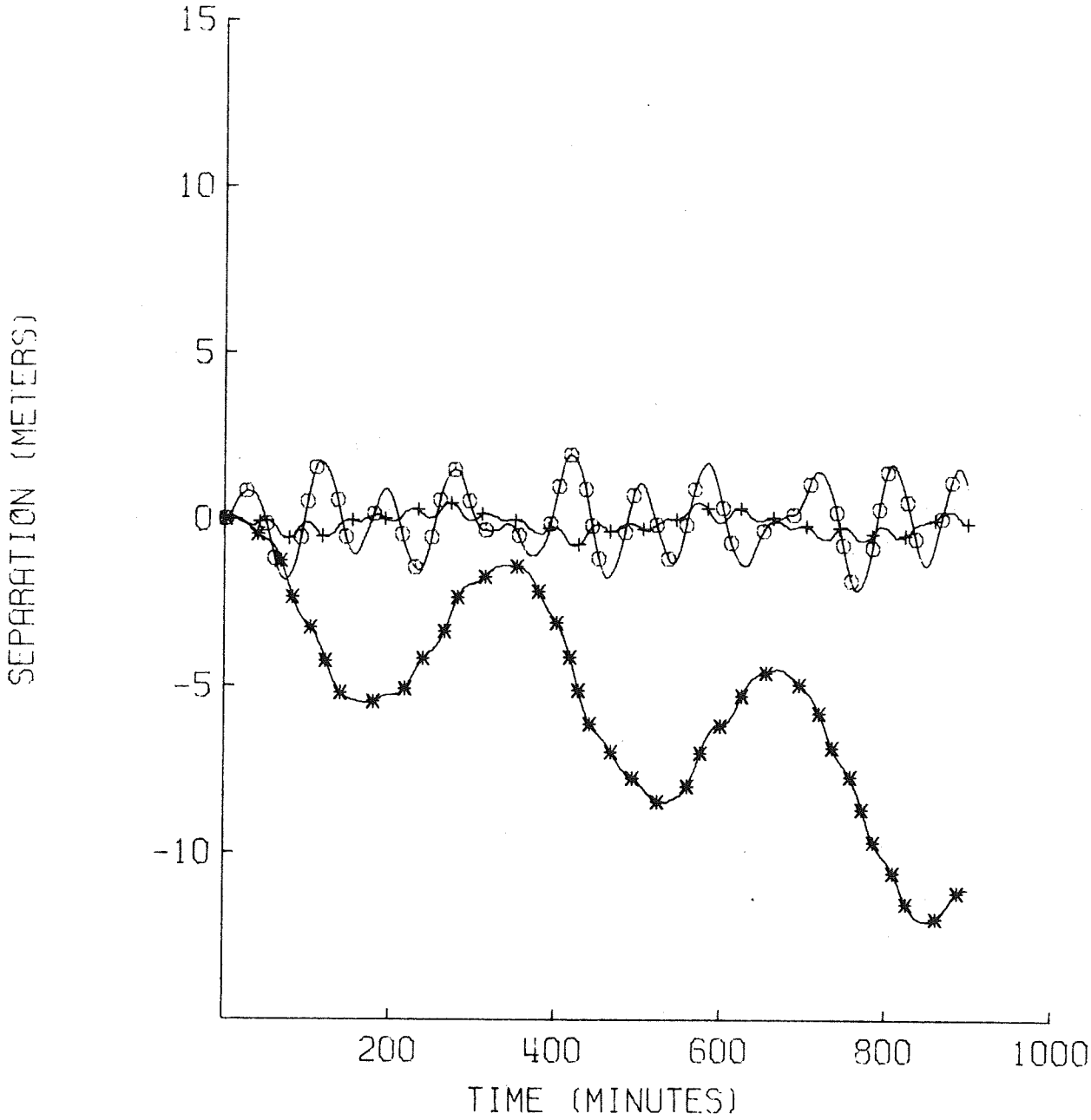
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(13 , 10) = -.0668
FACTOR USED IS 1.000000

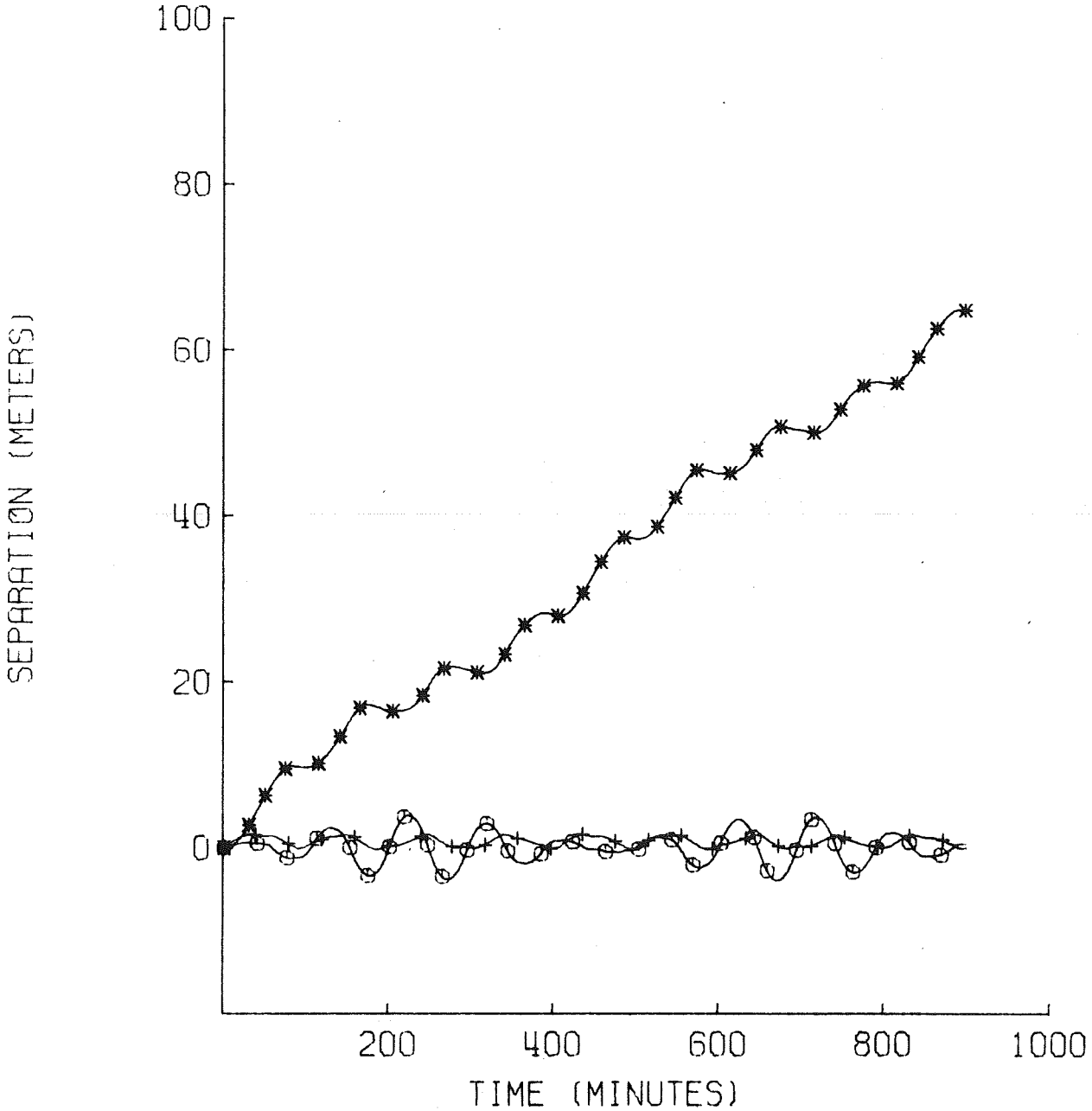
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(13 ,11) = -.0908
FACTØR USED IS 1.000000

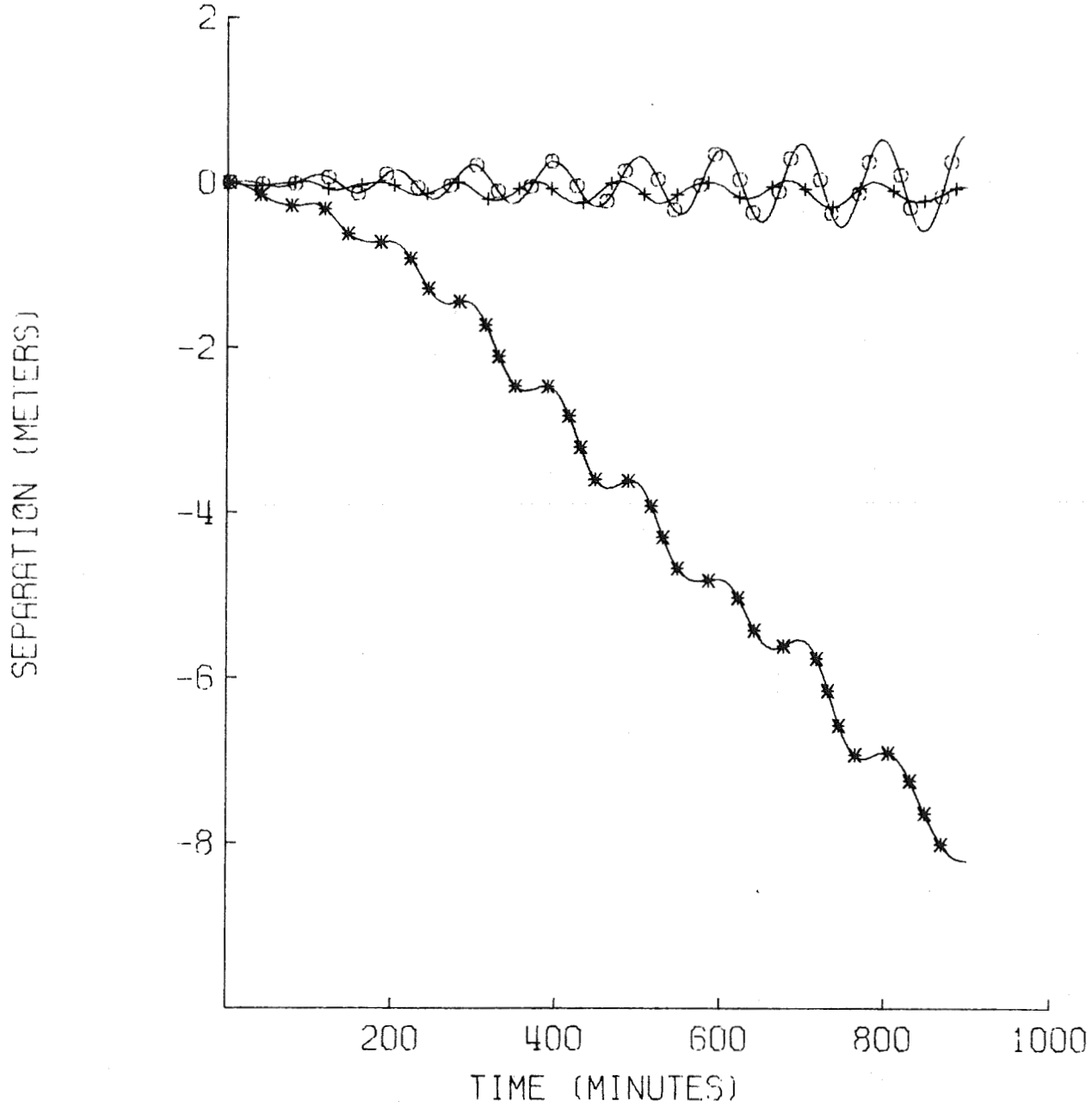
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(13,11) = .0020
FACTØR USED IS 1.000000

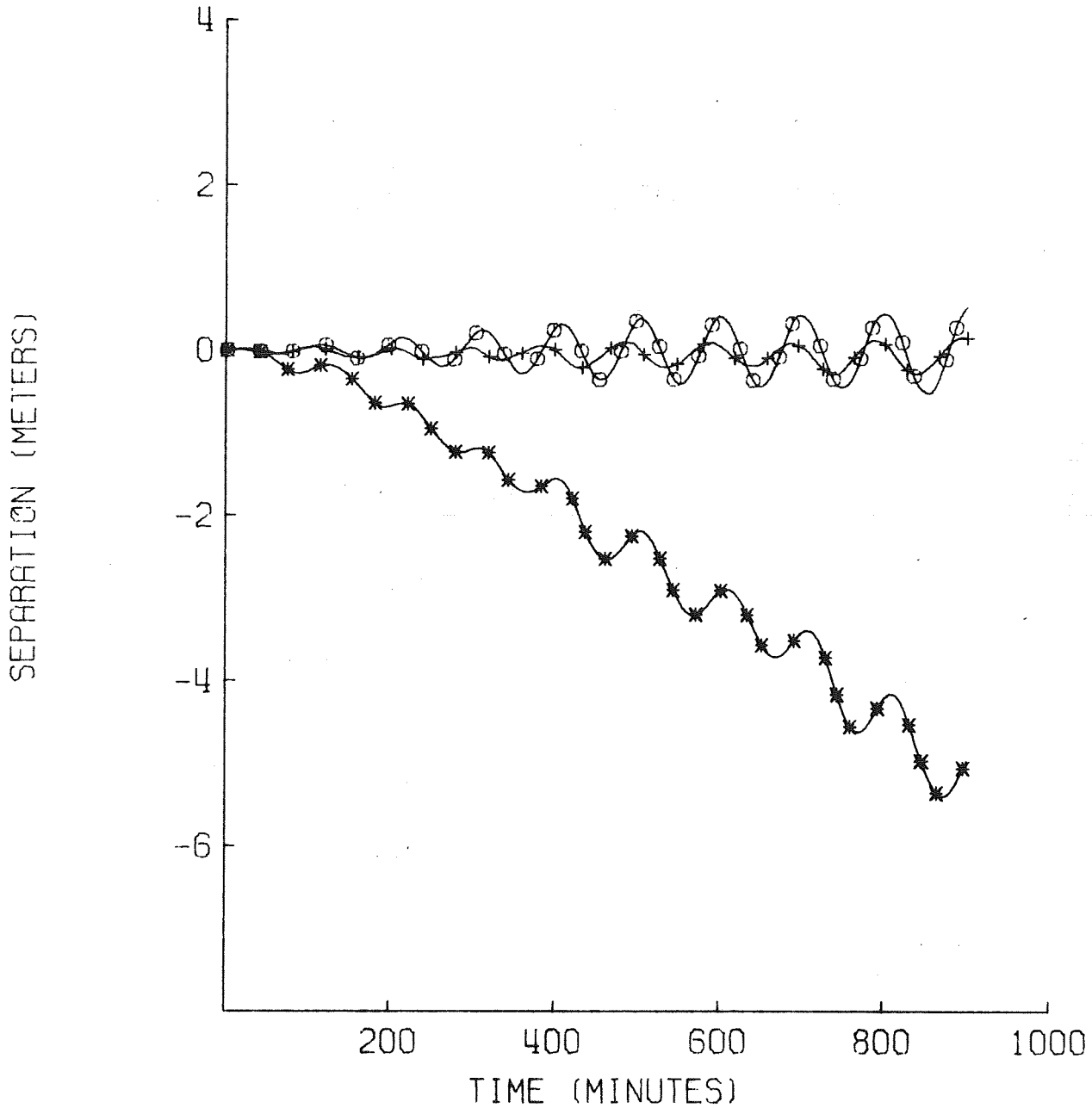
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(13 , 12) = .0060
FACTØR USED IS 1.000000

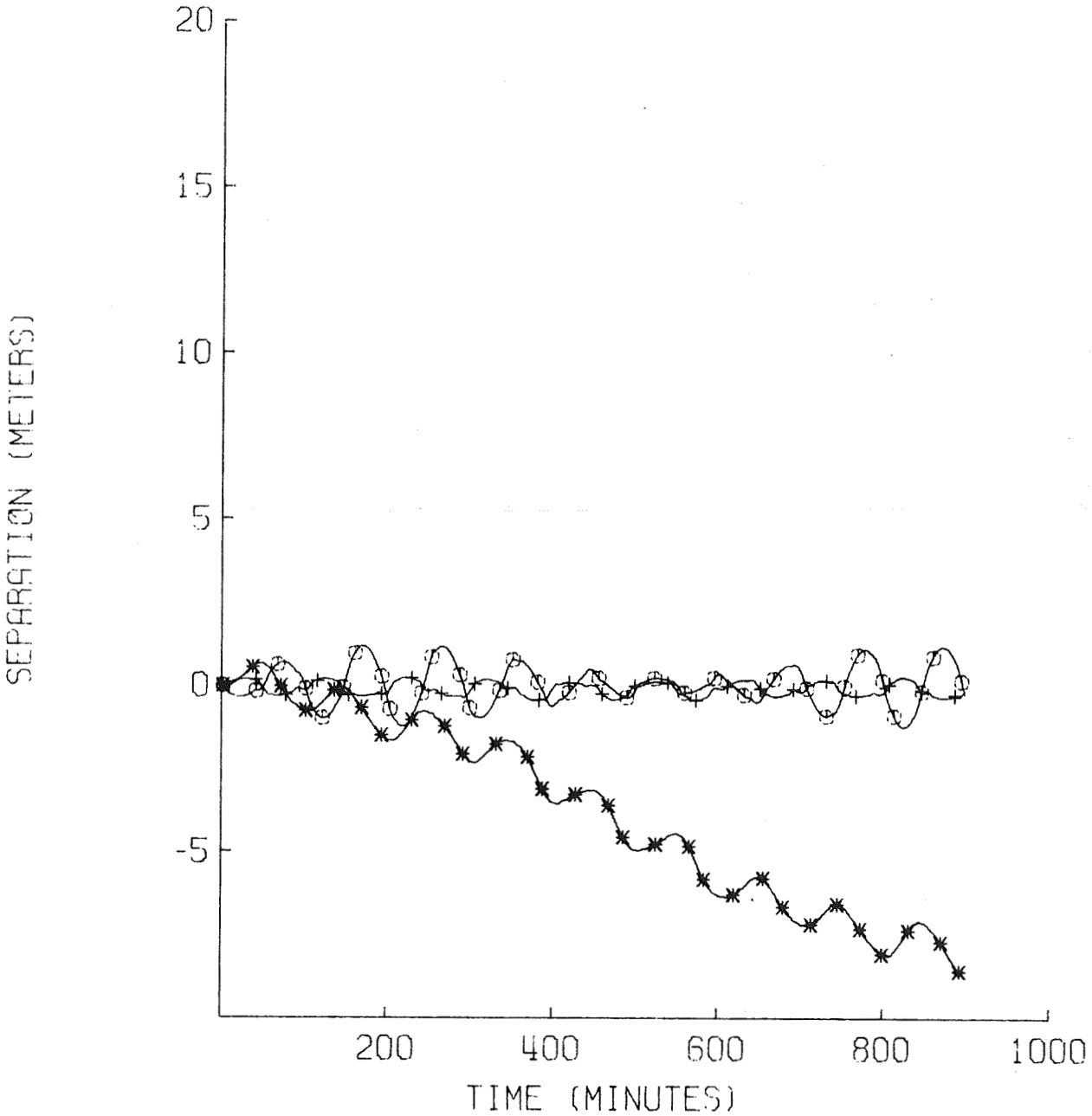
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊘) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(13 , 12) = .0650
FACTOR USED IS 1.000000

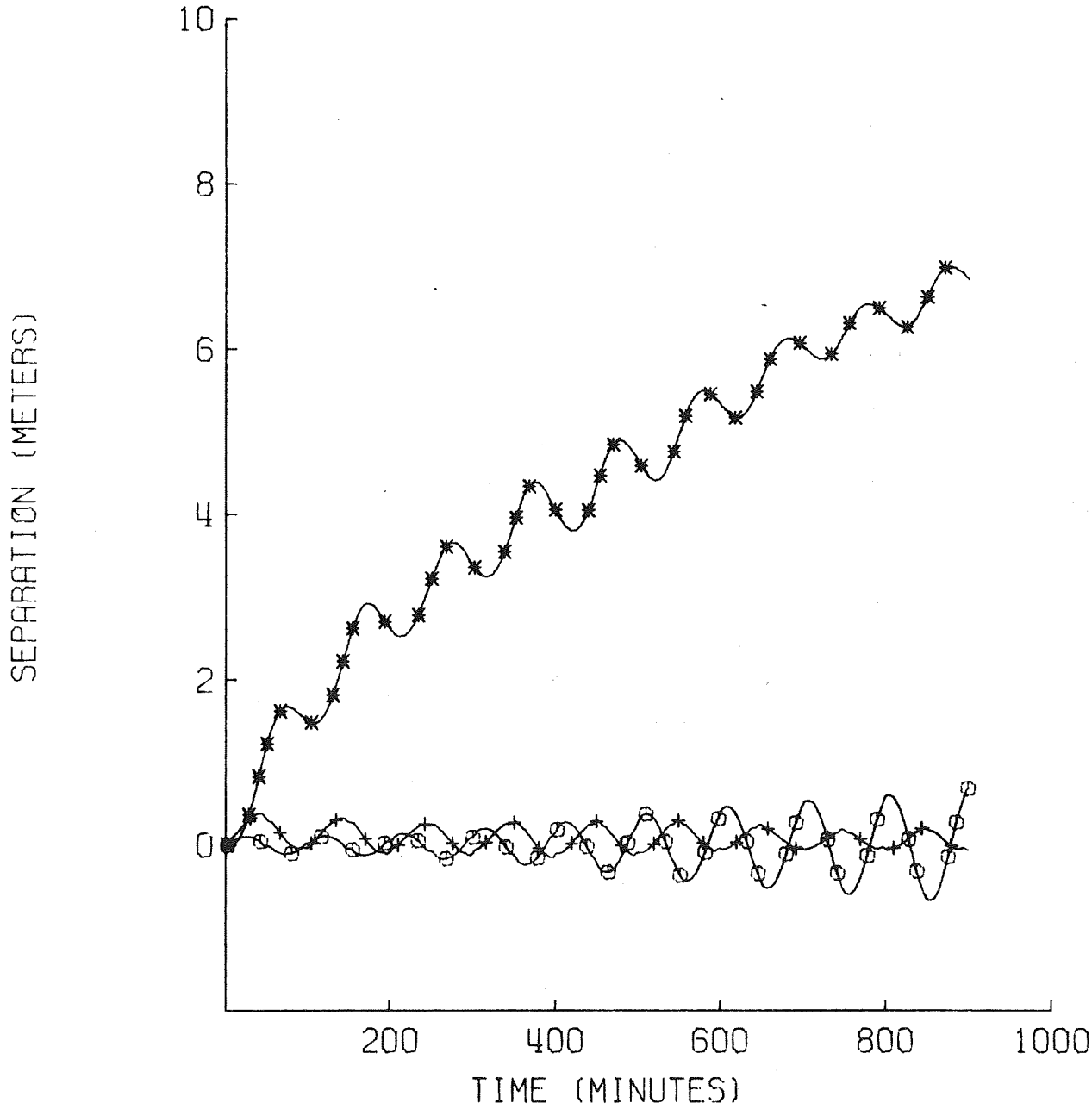
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(13 , 13) = -.0203
FACTØR USED IS 1.000000

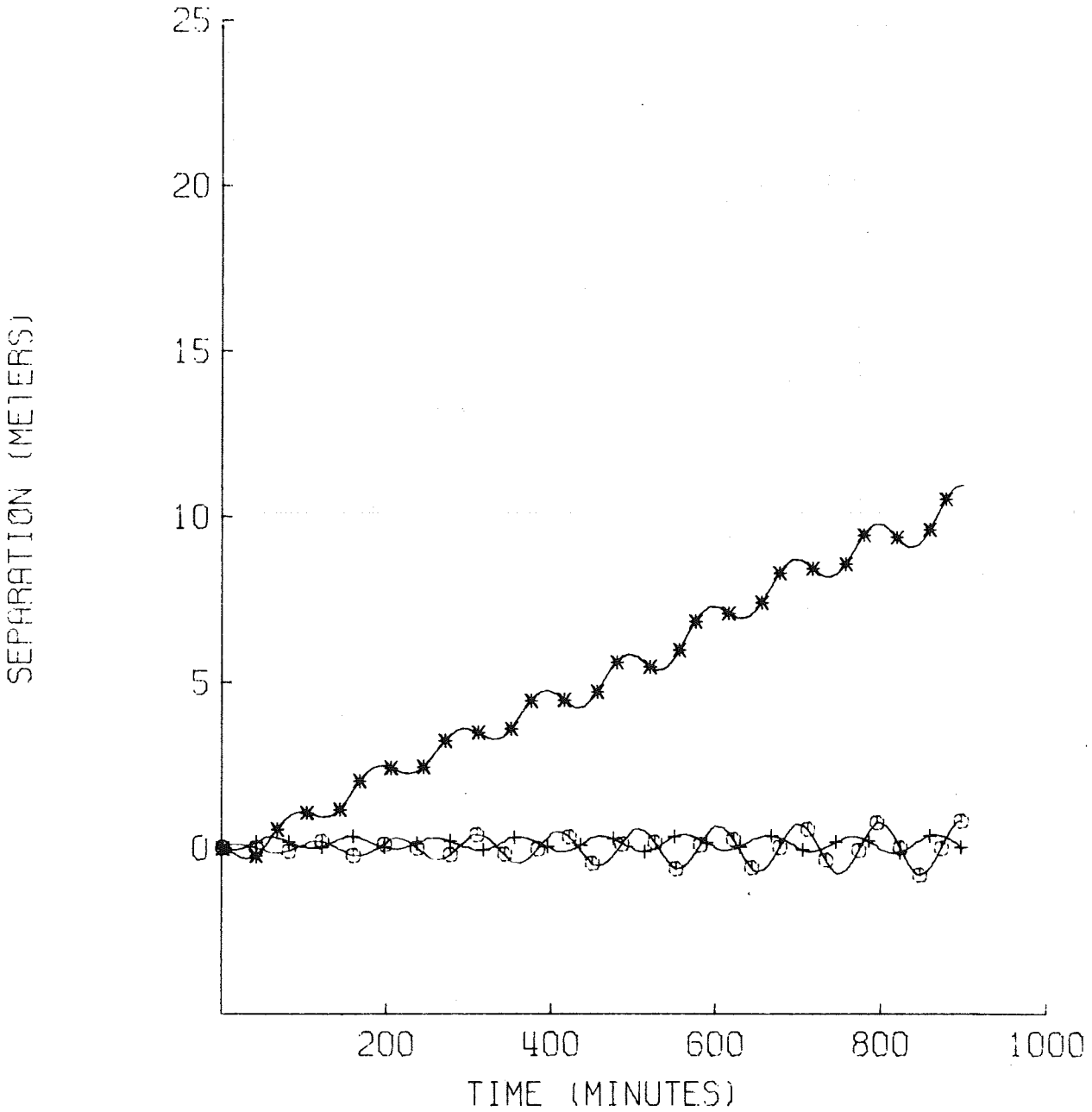
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(13 , 13) = .0250
FACTØR USED IS 1.000000

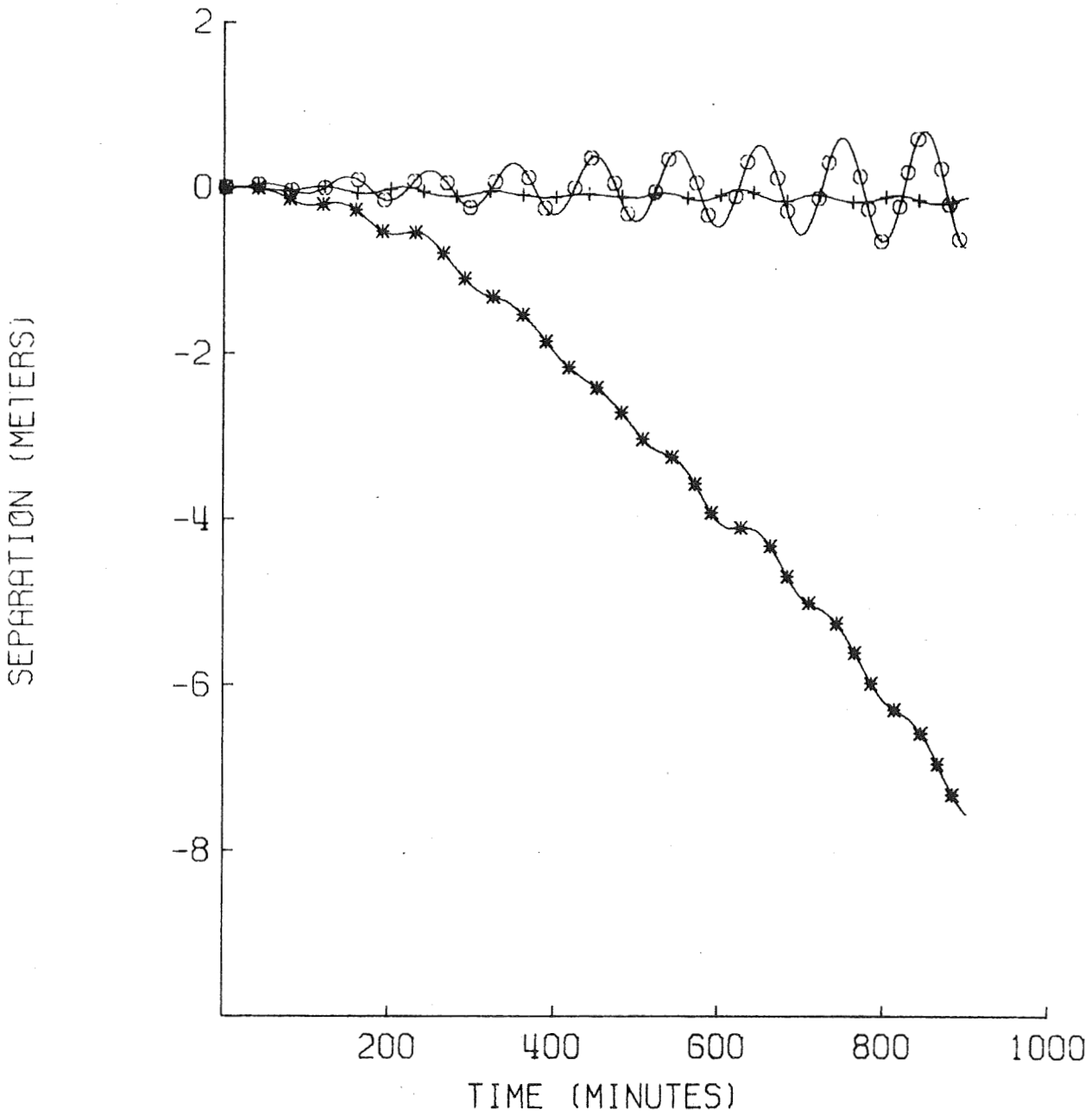
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊕) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(14 , 0) = -.0025
FACTØR USED IS 1.000000

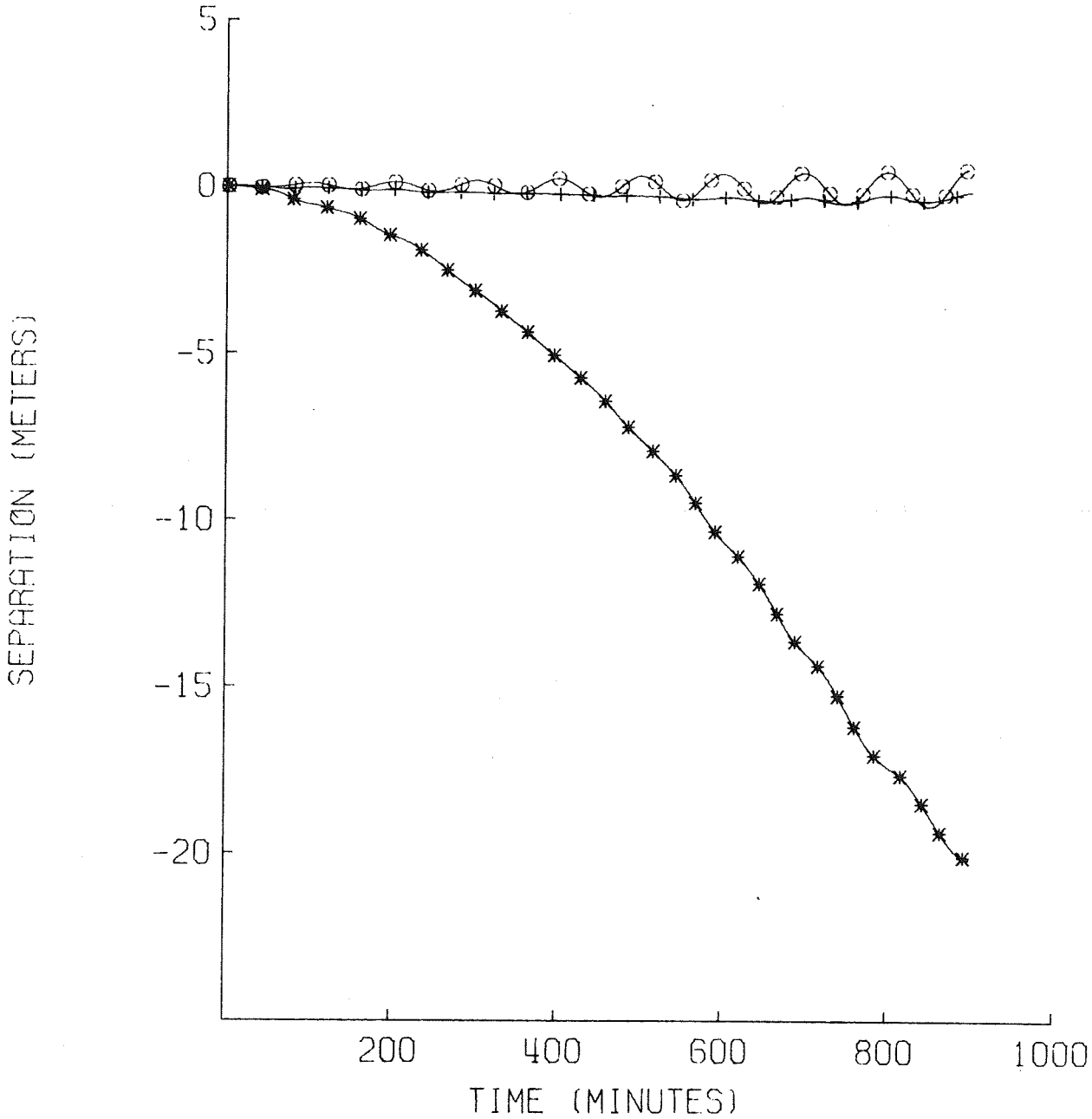
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⦶) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(14 ,1) = -.0019
FACTØR USED IS 1.000000

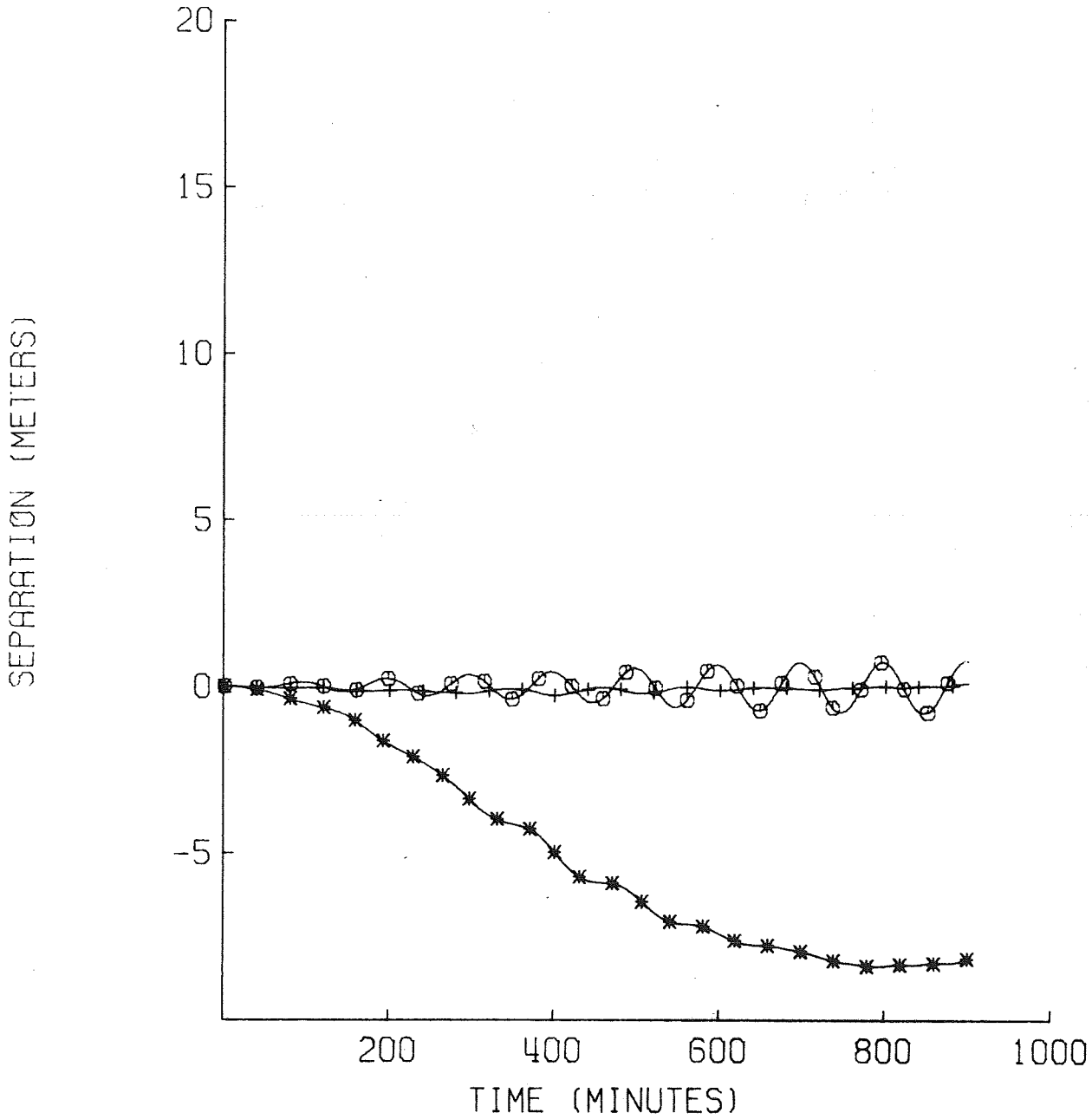
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊕) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(14 , 1) = -.0099
FACTØR USED IS 1.000000

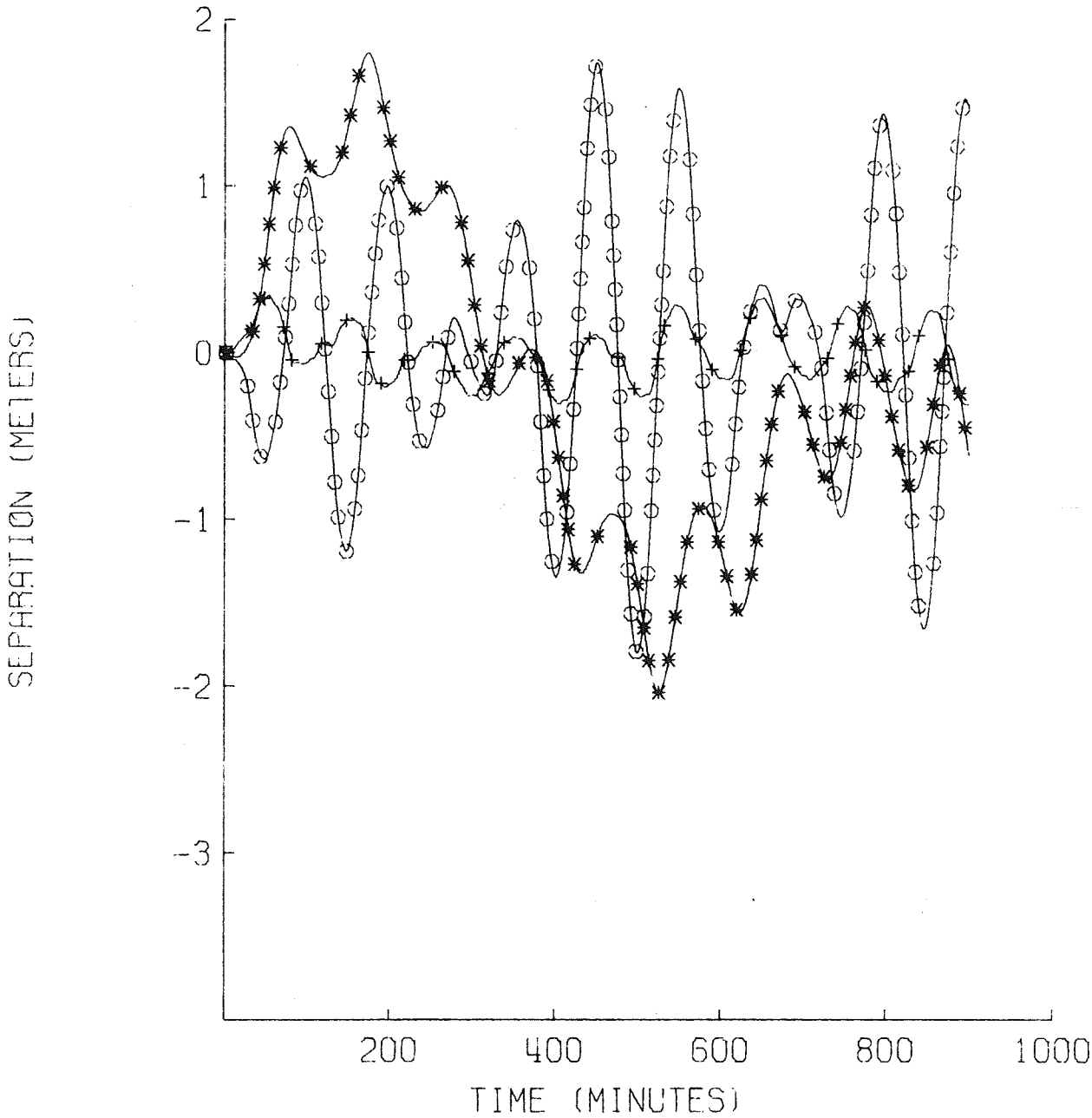
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⦶) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(14 ,2) = -.0651
FACTØR USED IS 1.000000

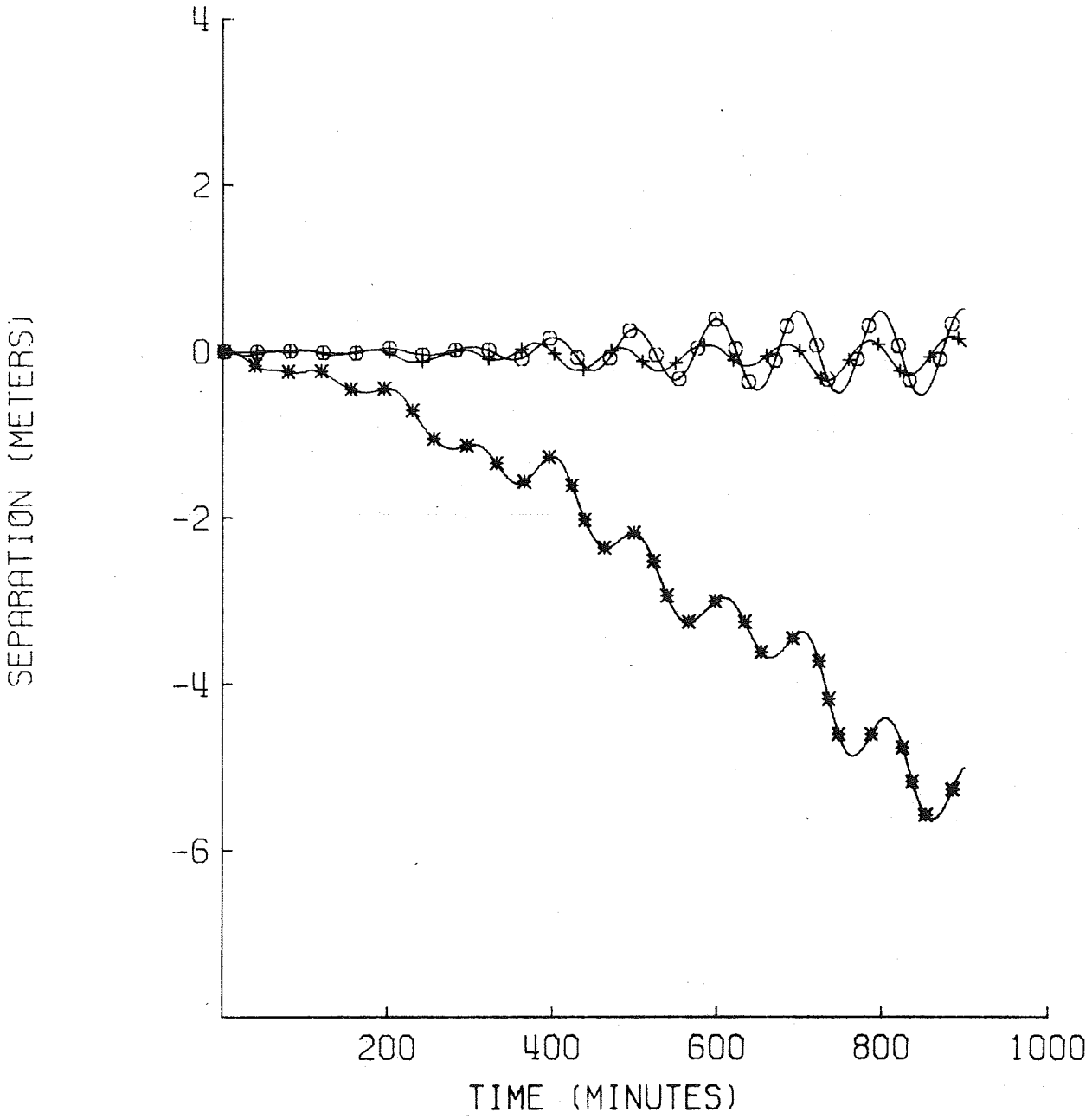
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(14 , 2) = -.0027
FACTØR USED IS 1.000000

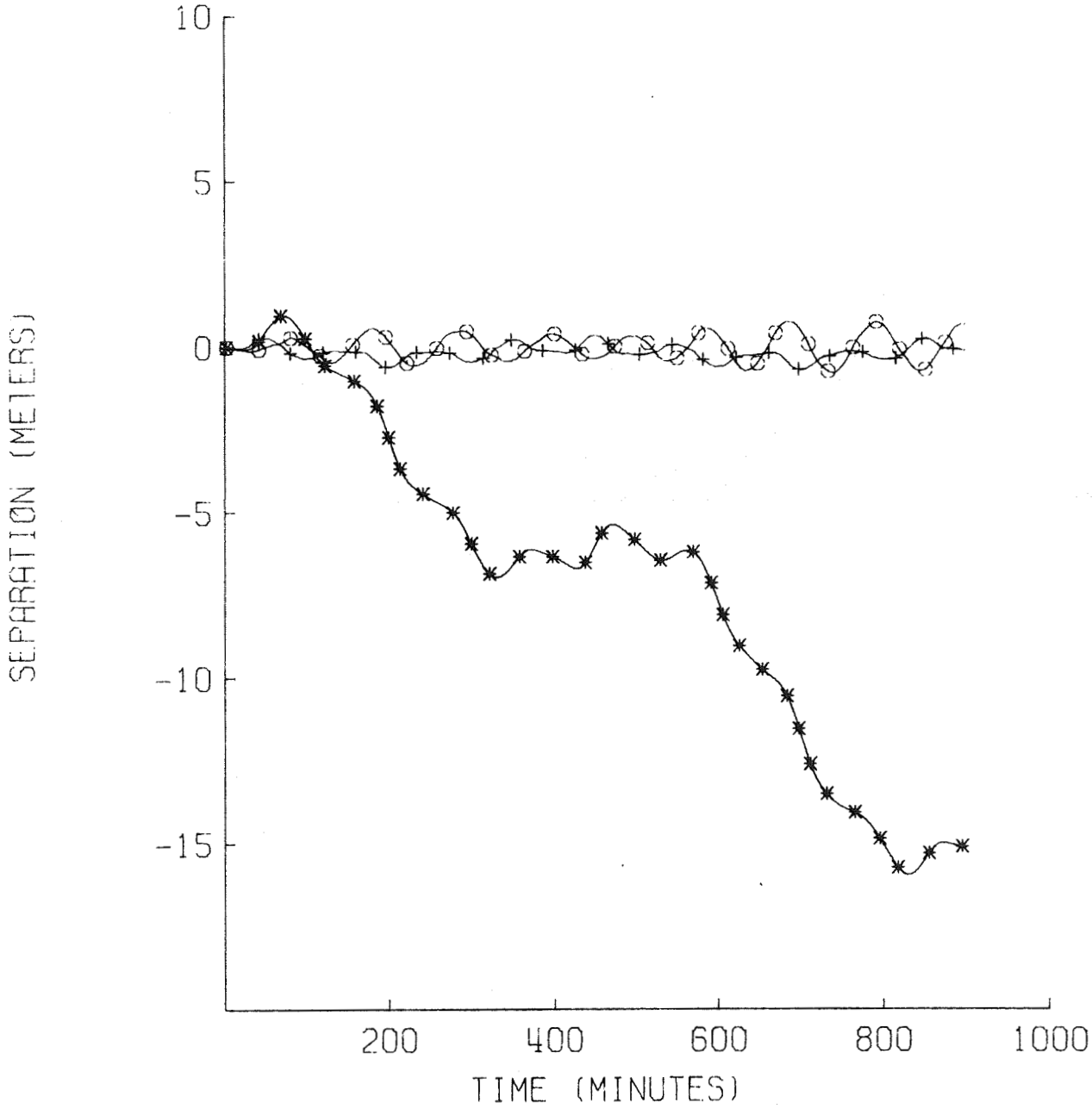
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊕) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(14 , 3) = .0457
FACTØR USED IS 1.000000

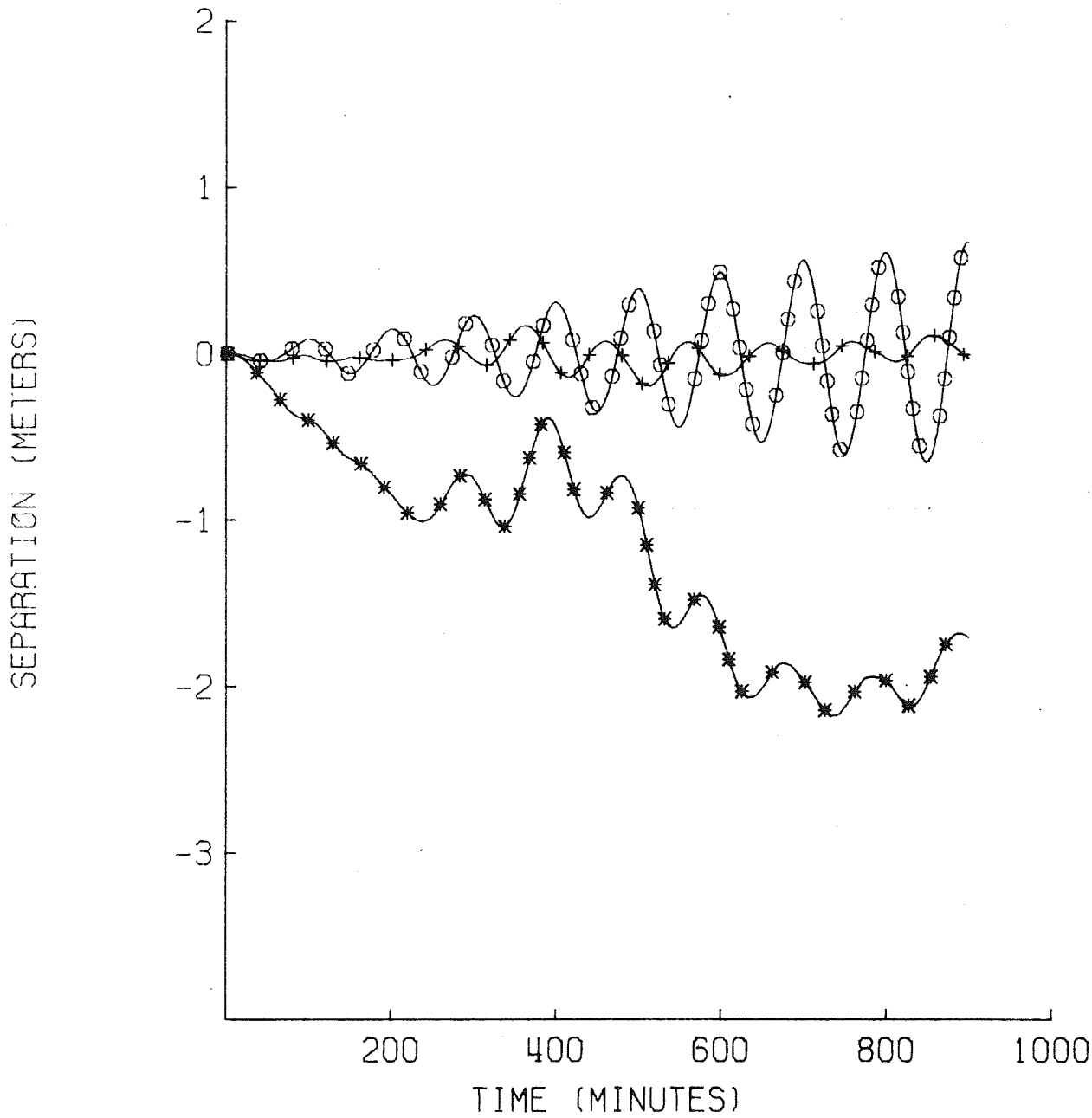
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(14 , 3) = .0012
FACTOR USED IS 1.000000

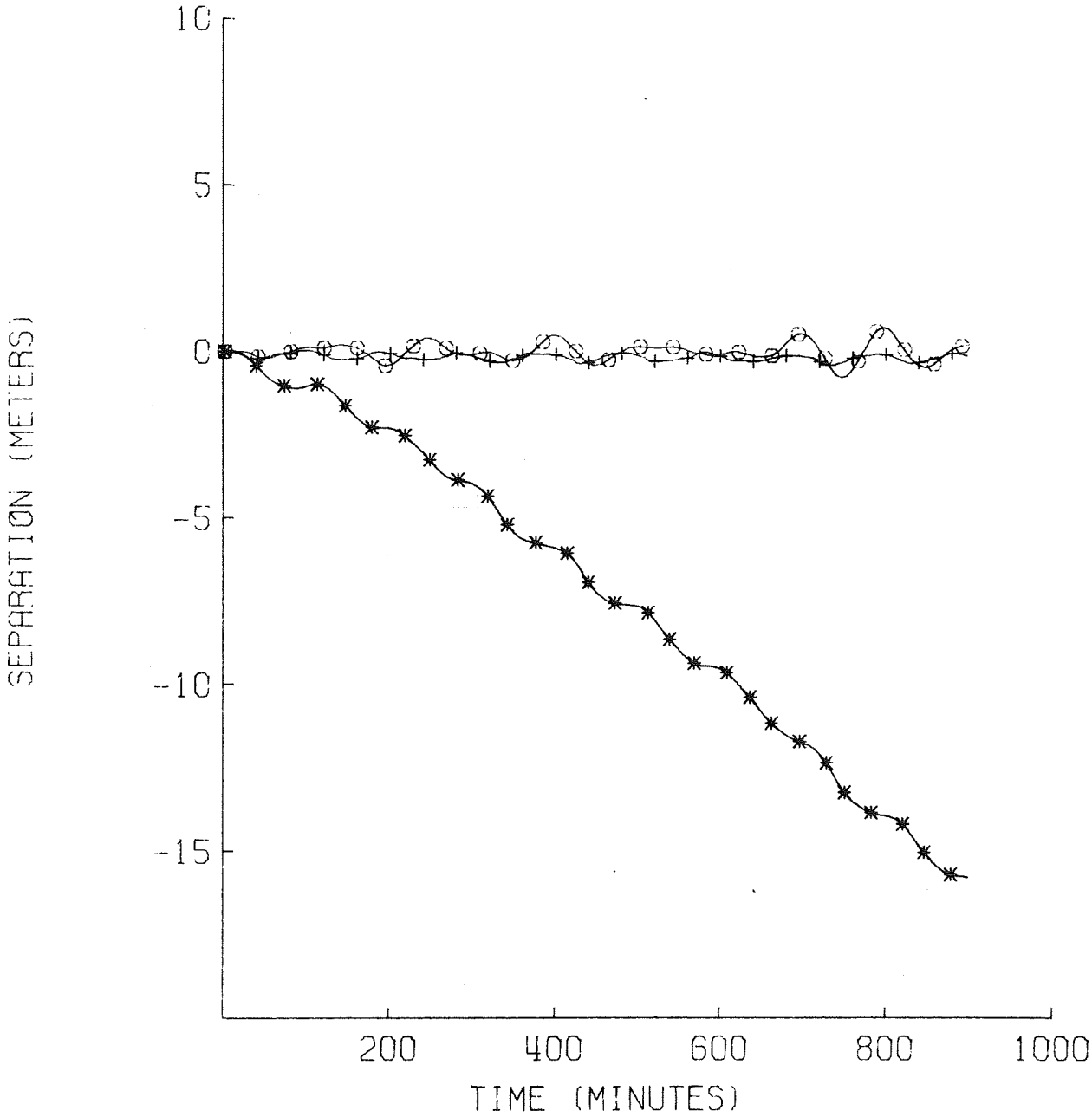
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(14 ,4) = .0233
FACTØR USED IS 1.000000

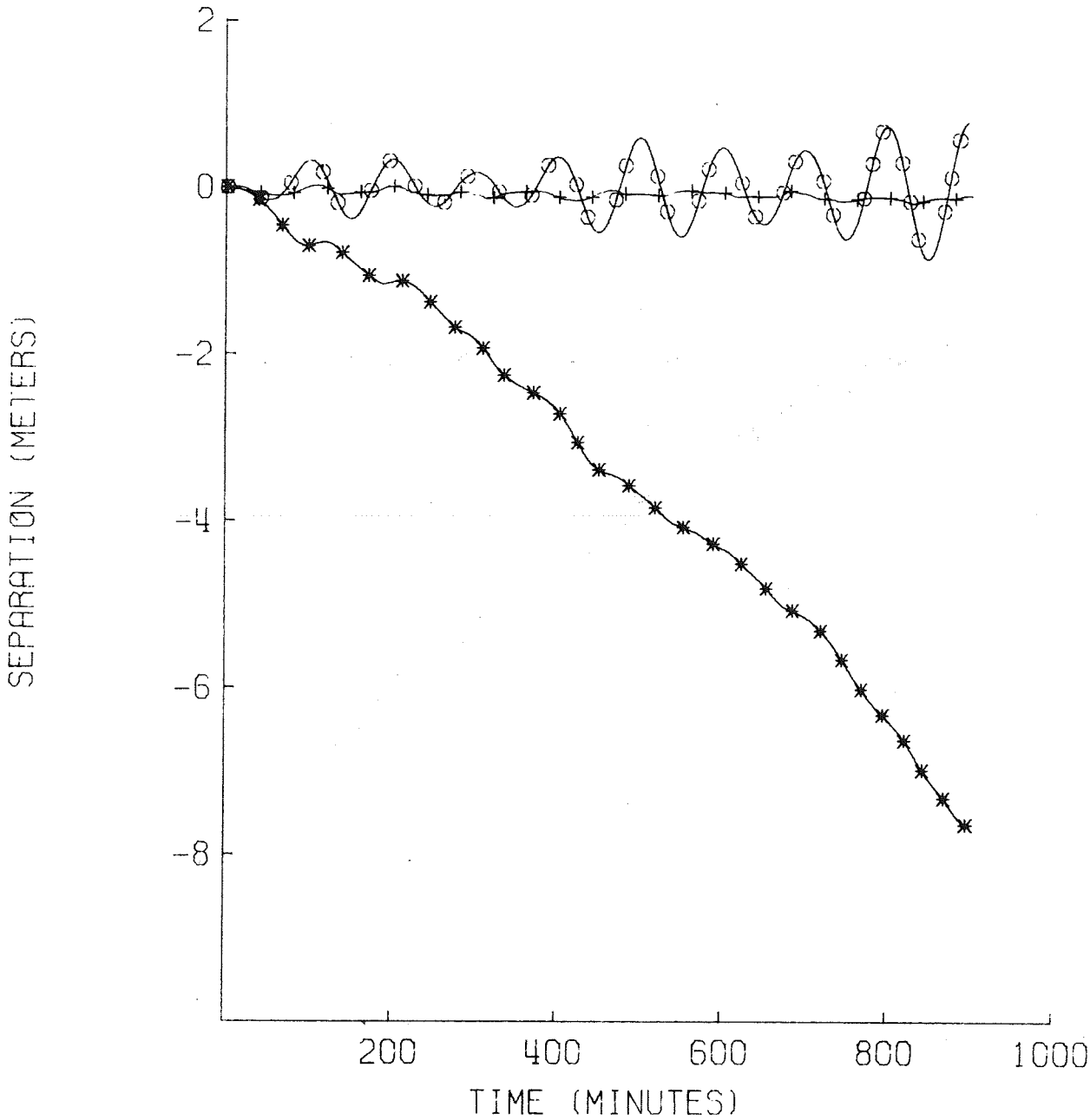
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊘) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(14 , 4) = -.0091
FACTØR USED IS 1.000000

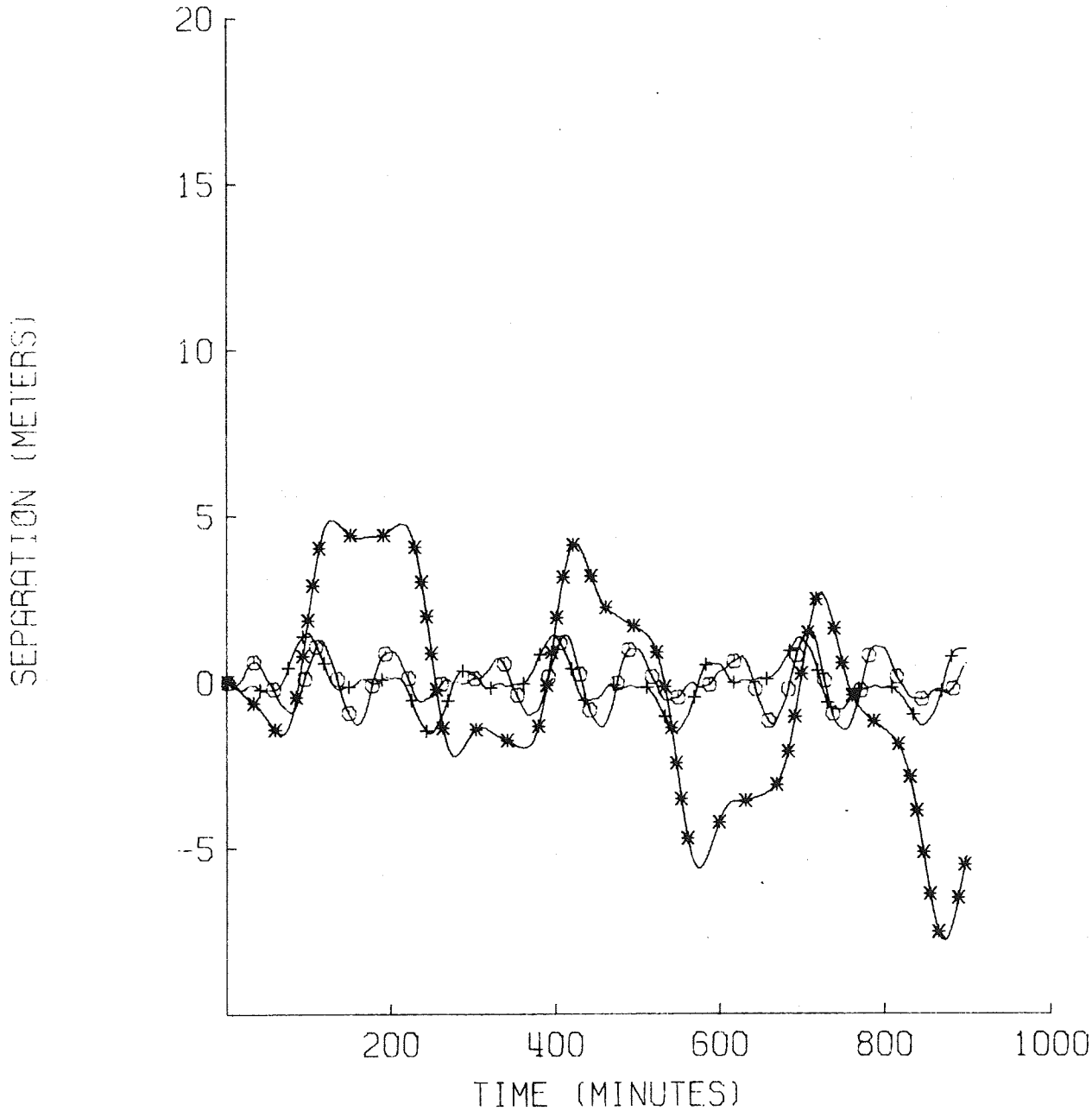
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⦶) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(14 ,5) = .1033
FACTØR USED IS 1.000000

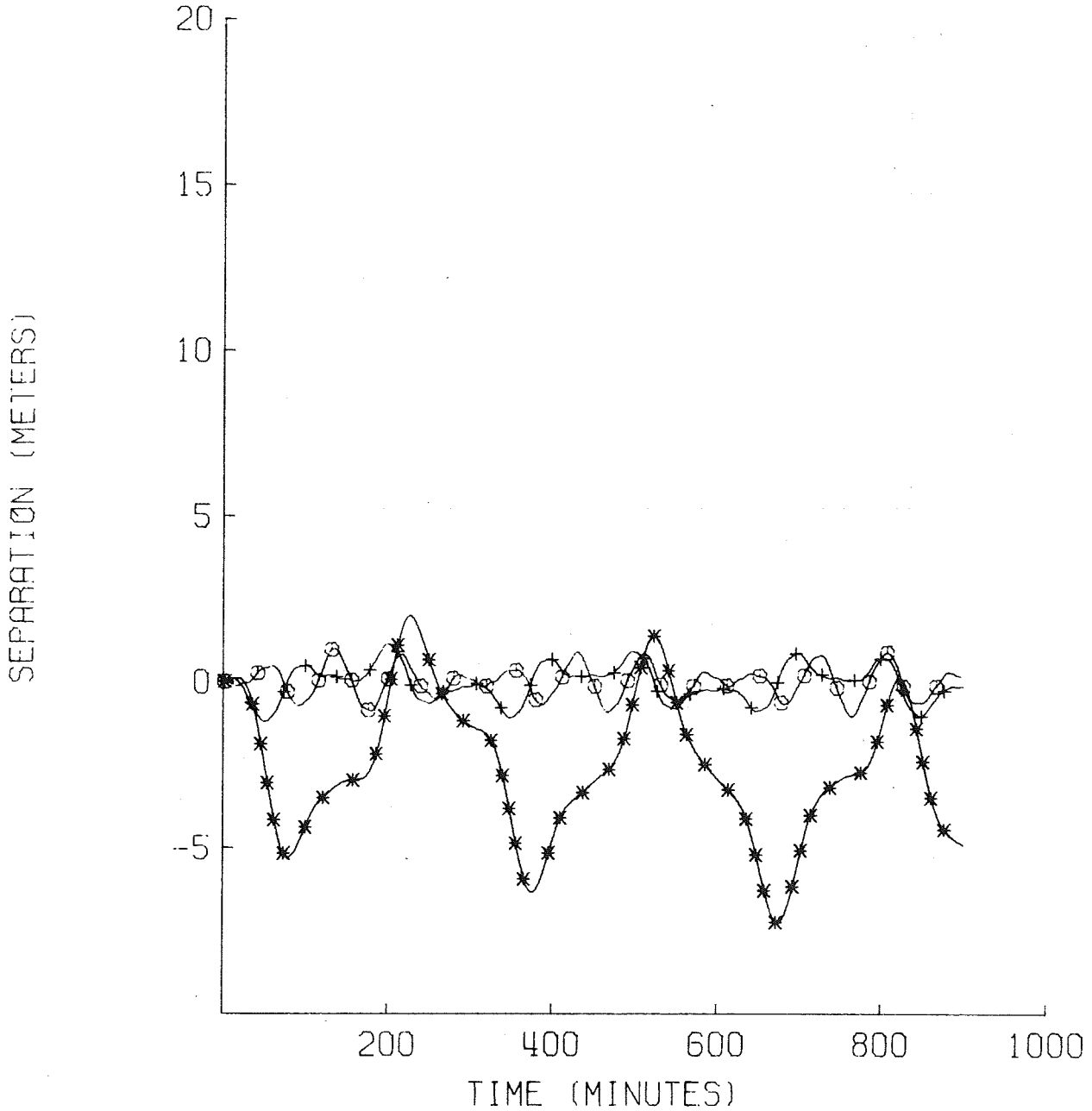
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(14 , 5) = -.0849
FACTØR USED IS 1.000000

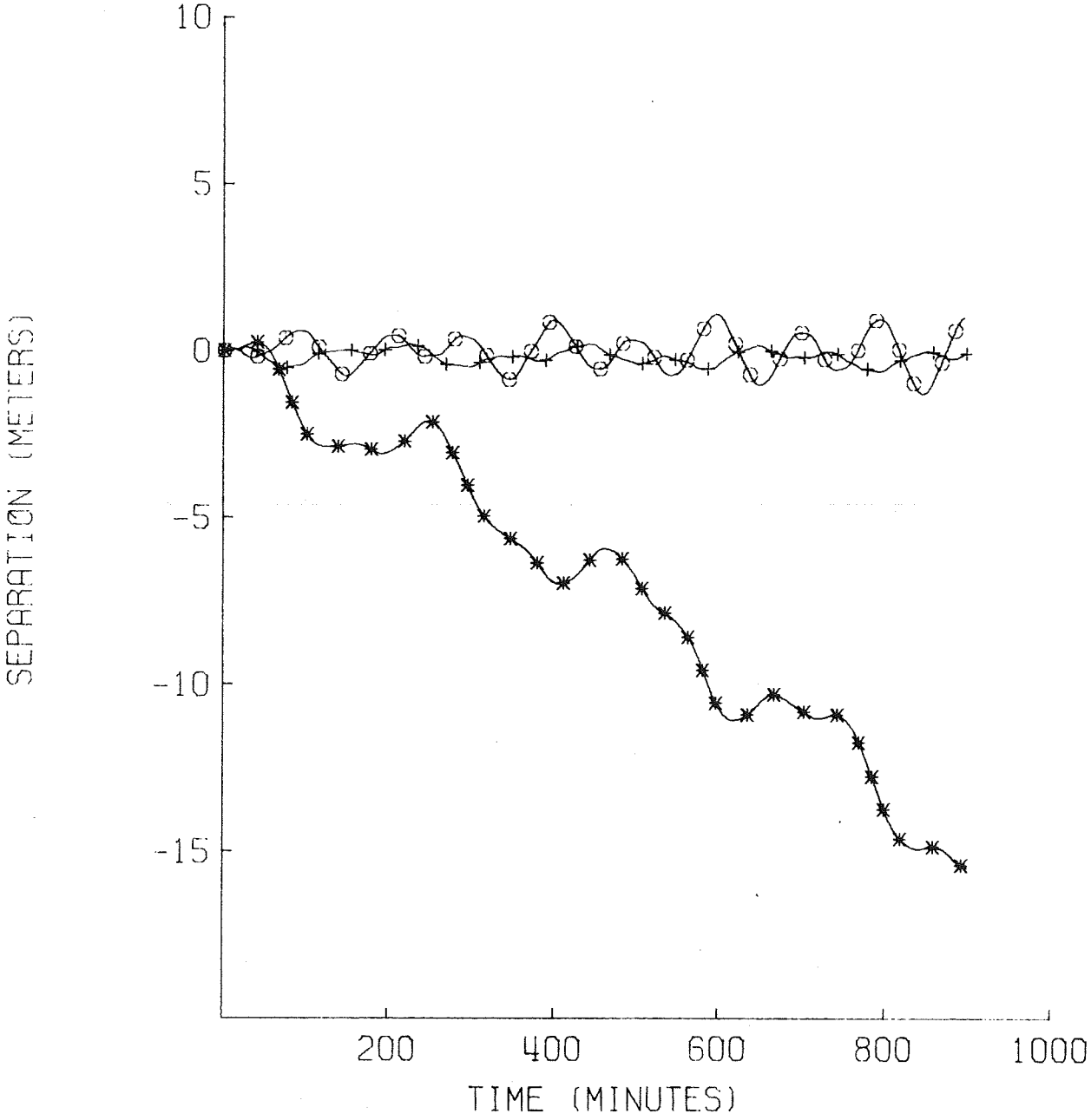
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⏀) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(14 ,6) = .0353
FACTØR USED IS 1.000000

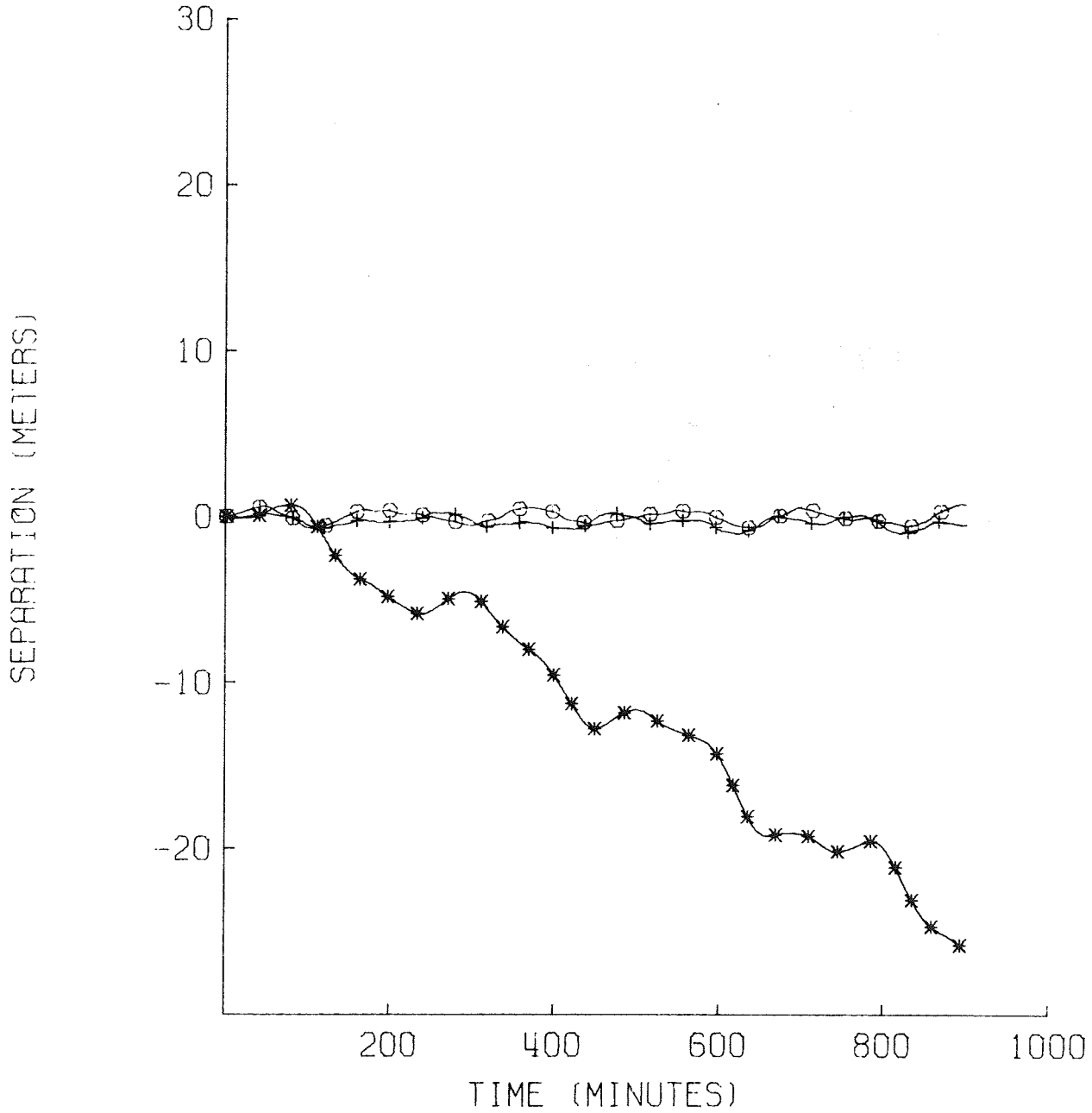
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(14 , 6) = -.0500
FACTØR USED IS 1.000000

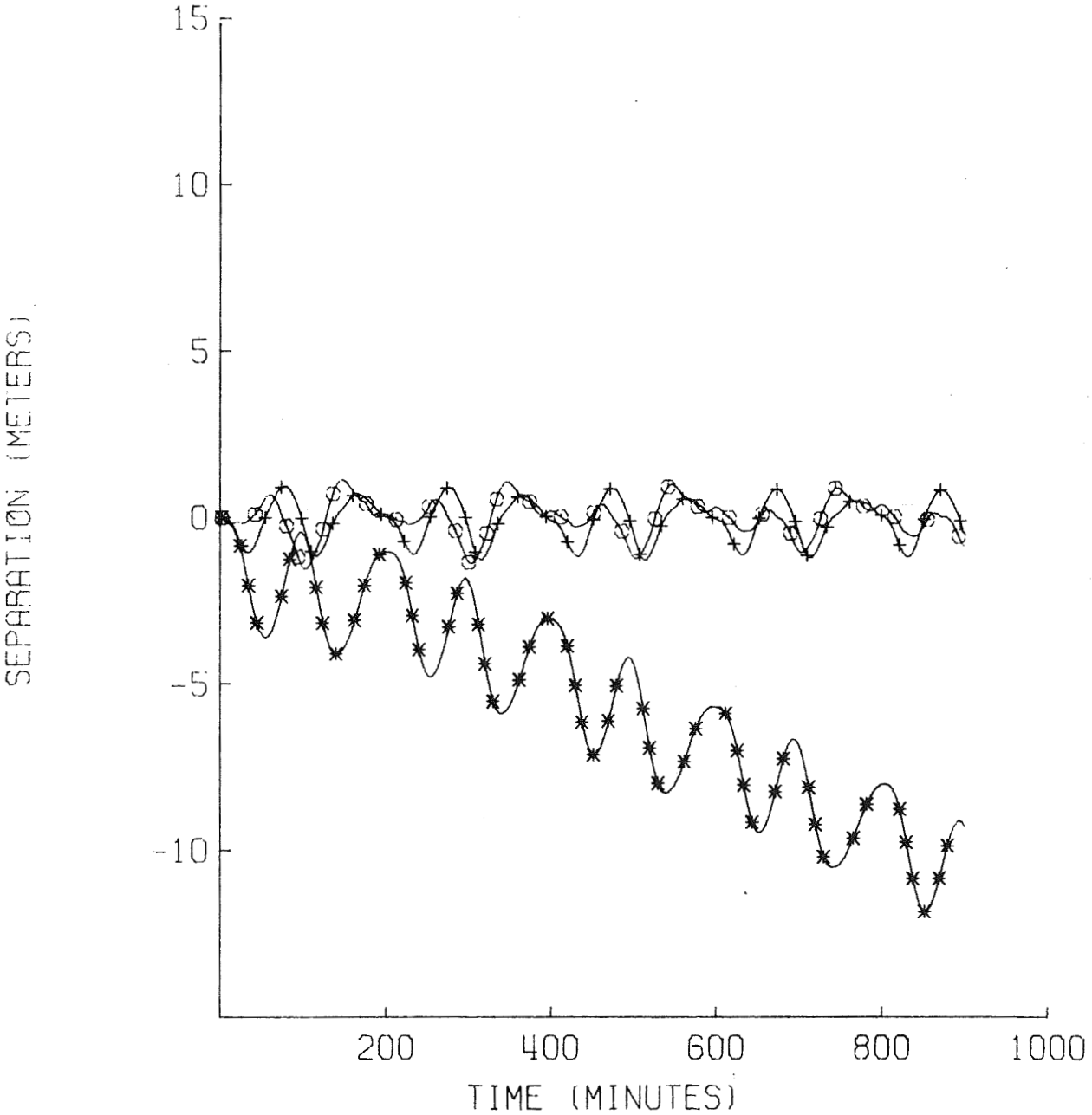
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊕) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(14 ,7) = .0759
FACTØR USED IS 1.000000

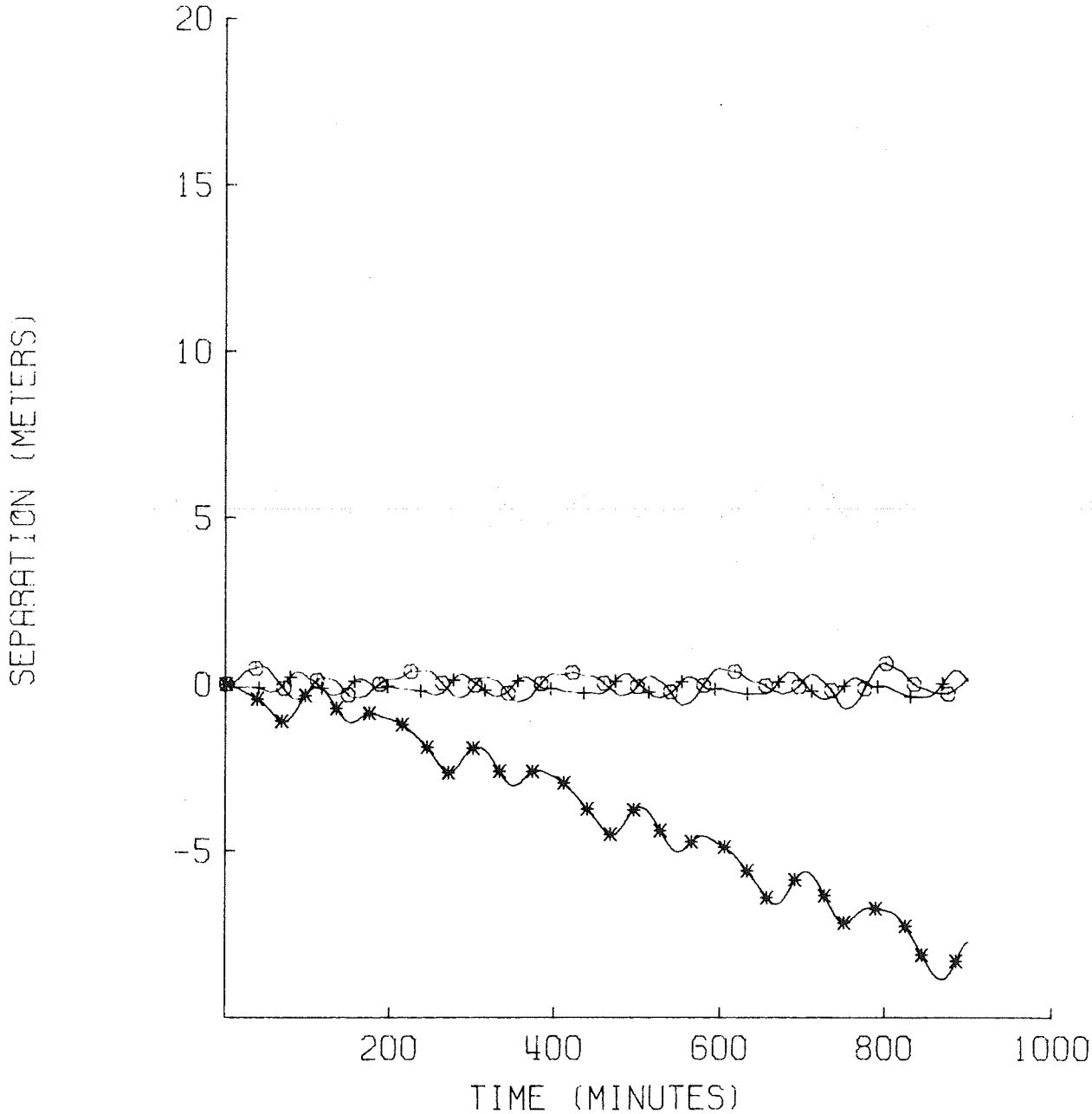
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊘) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(14 , 7) = .0366
FACTOR USED IS 1.000000

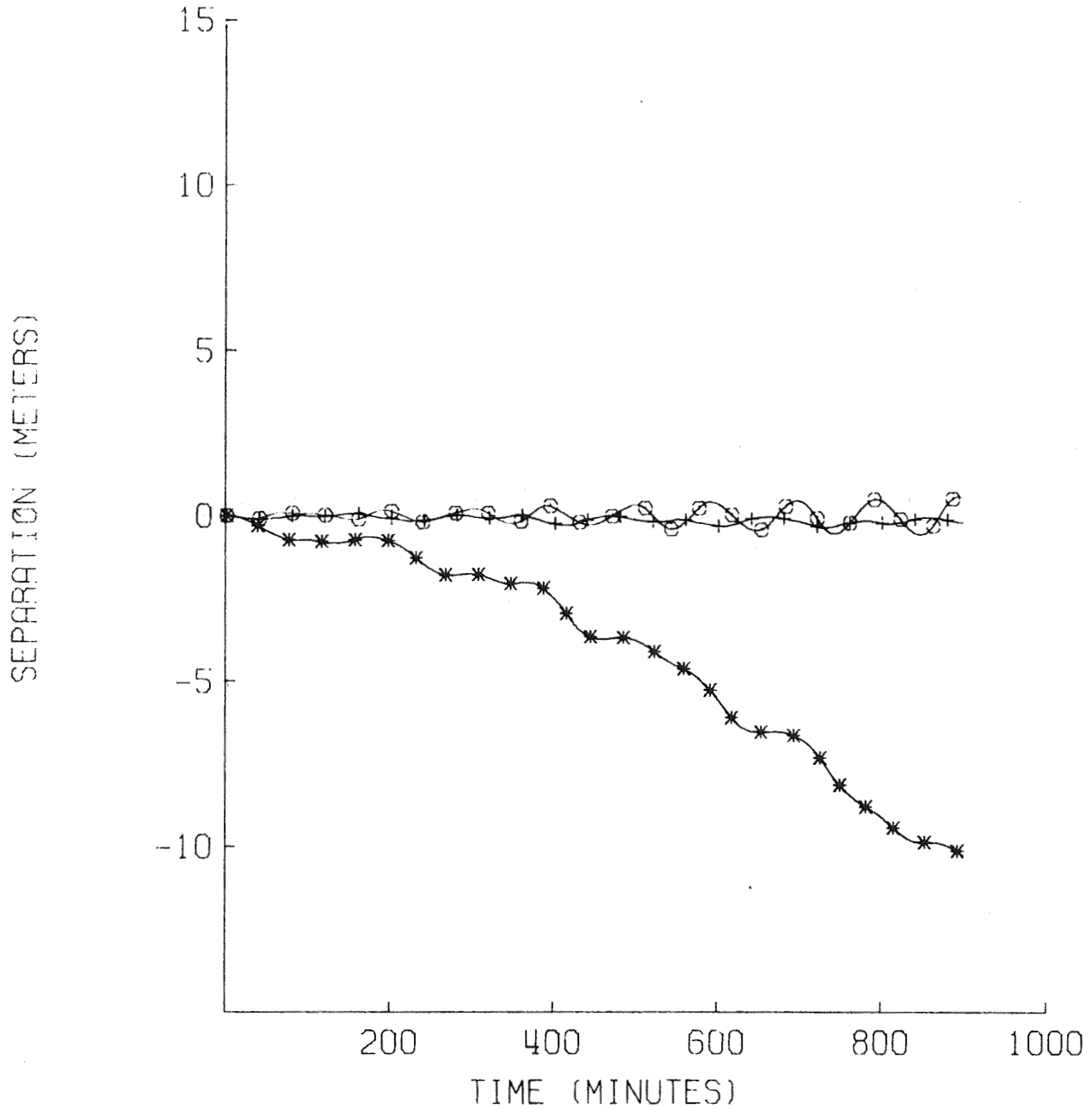
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊙) BI-NORMAL CROSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(14 , 8) = -.0074
FACTOR USED IS 1.000000

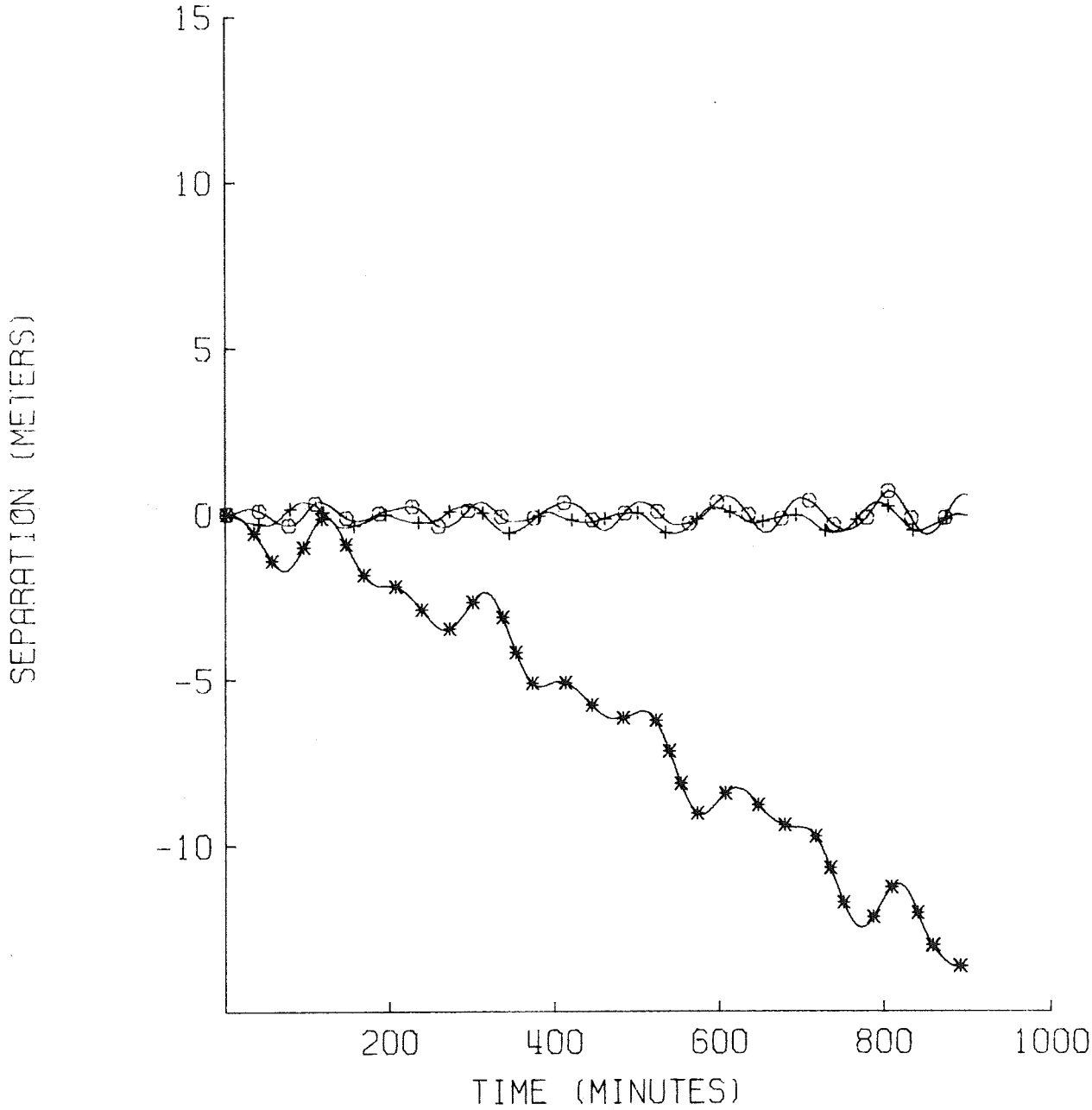
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊕) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(14 , 8) = -.0155
FACTØR USED IS 1.000000

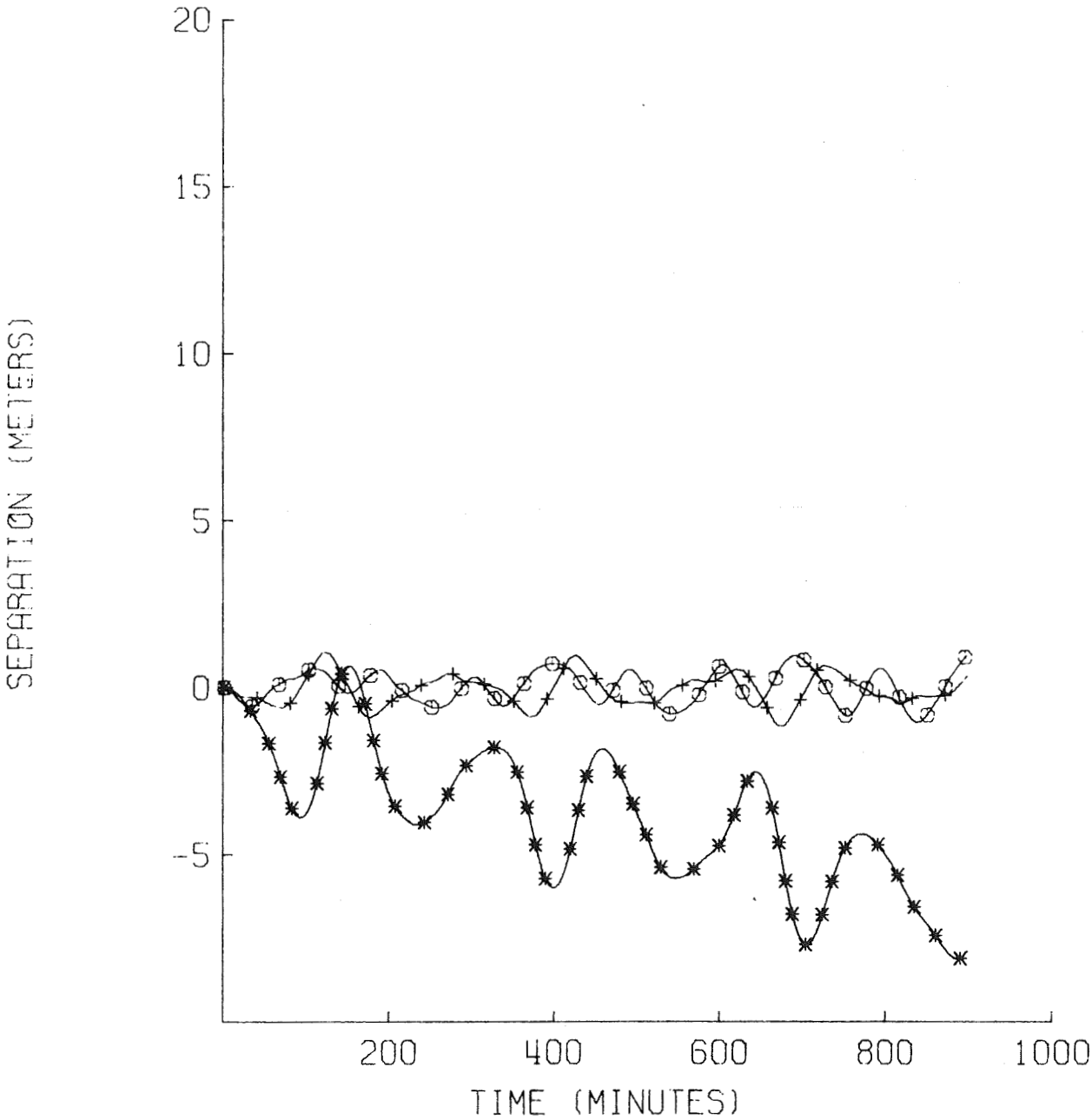
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(14 ,9) = .0351
FACTOR USED IS 1.000000

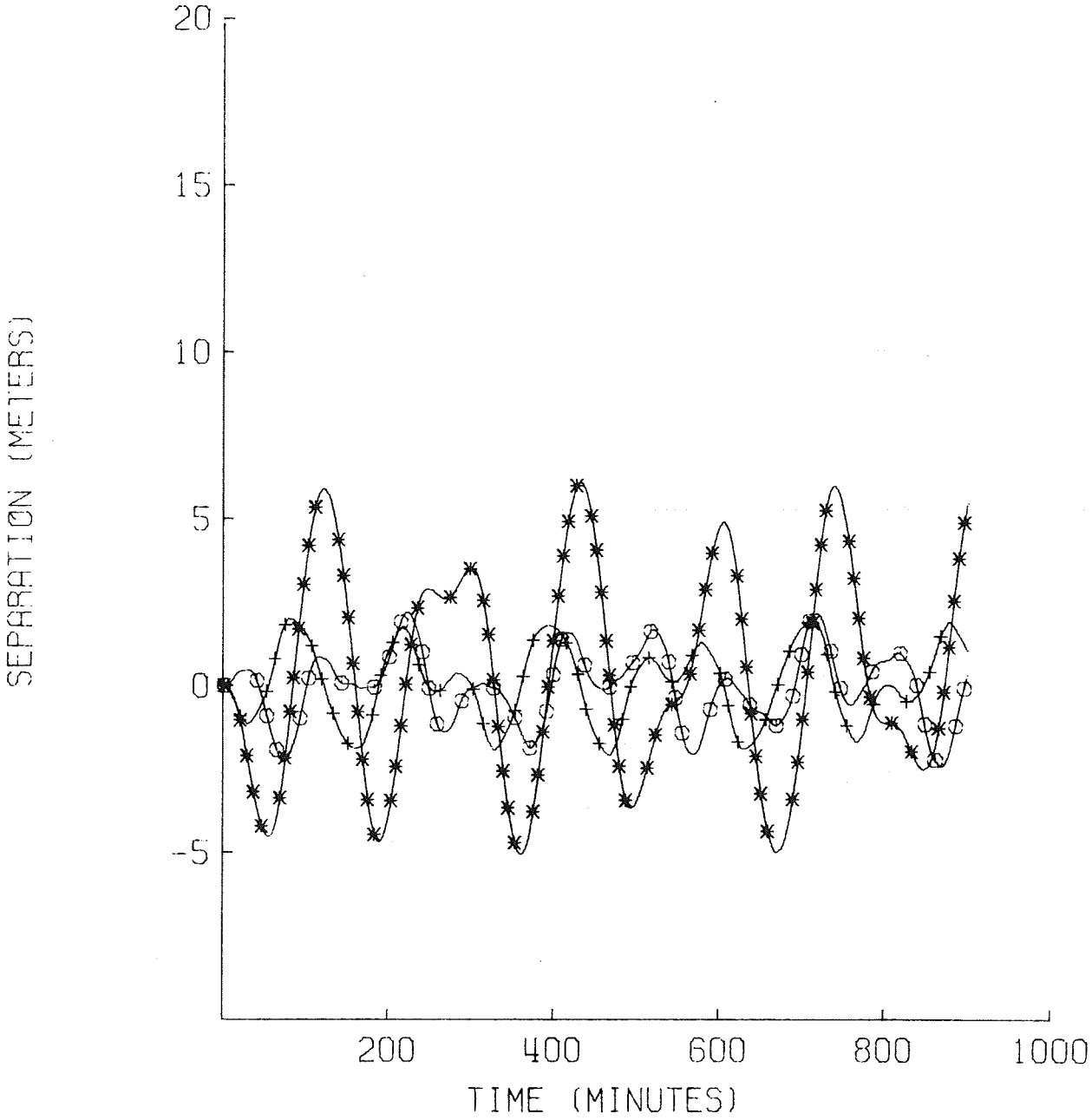
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊘) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(14 ,9) = .0849
FACTØR USED IS 1.000000

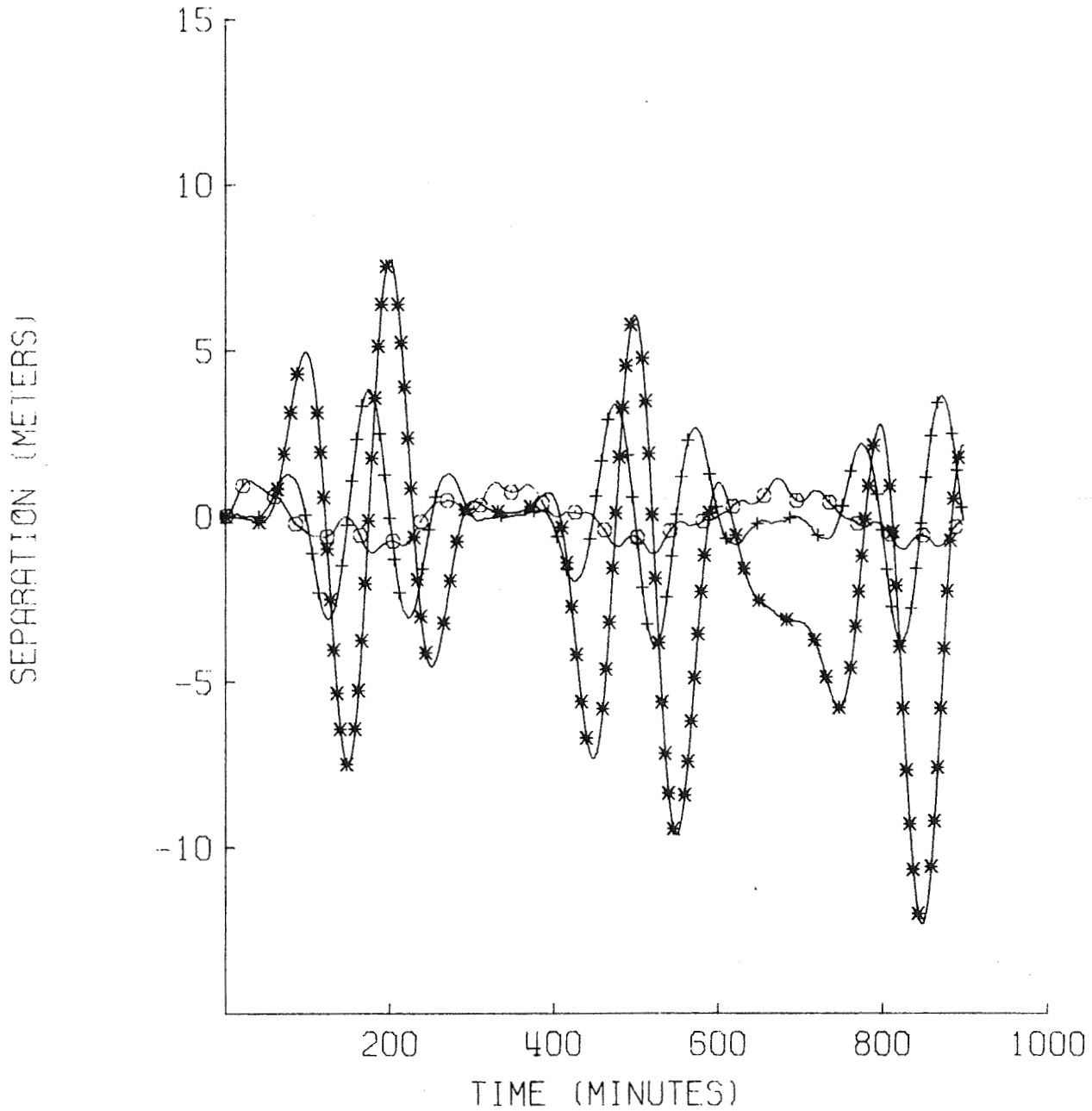
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(14 , 10) = .0748
FACTØR USED IS 1.000000

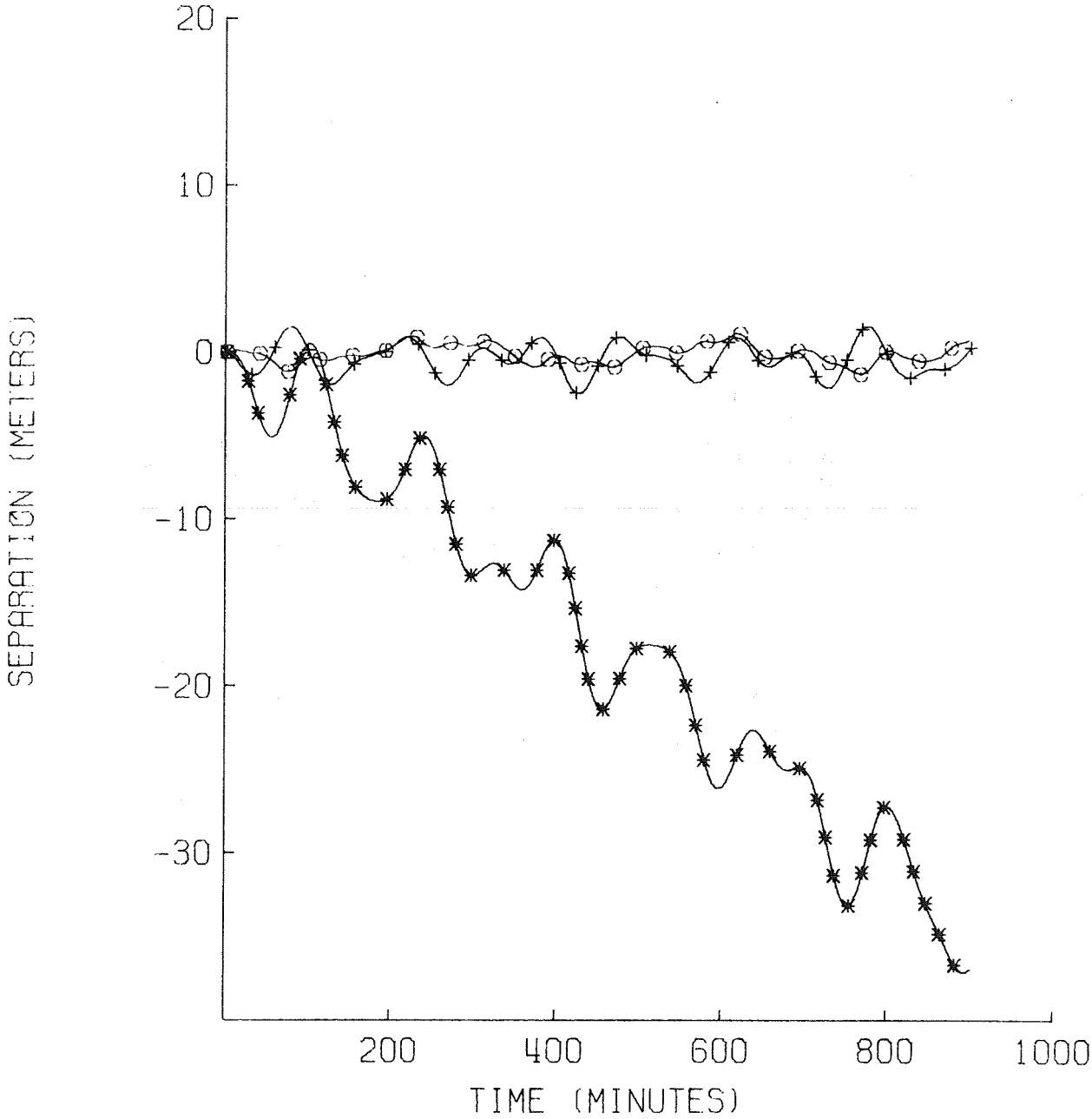
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊘) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(14 , 10) = -.0645
FACTOR USED IS 1.000000

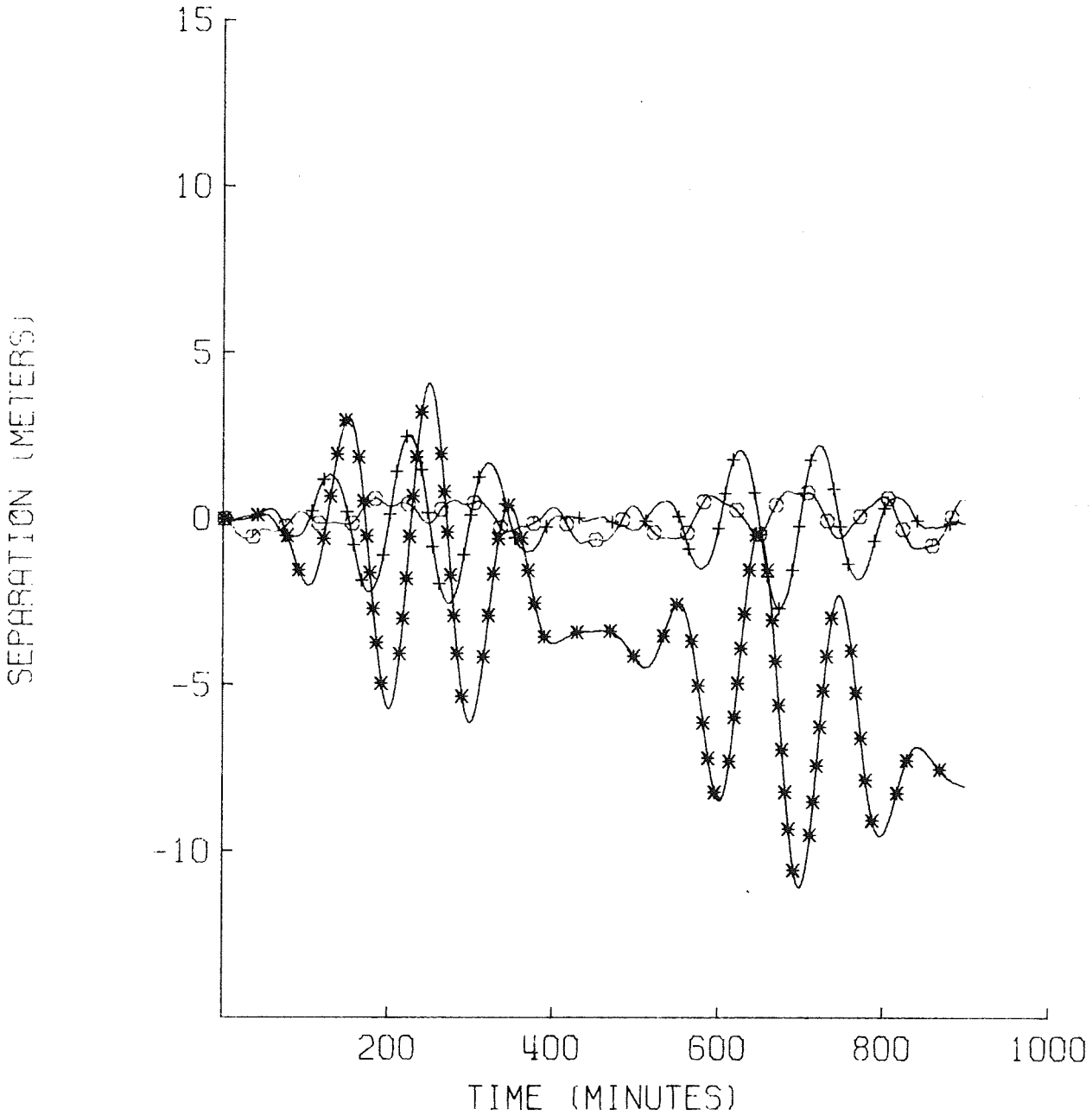
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊖) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(14 , 11) = .0520
FACTØR USED IS 1.000000

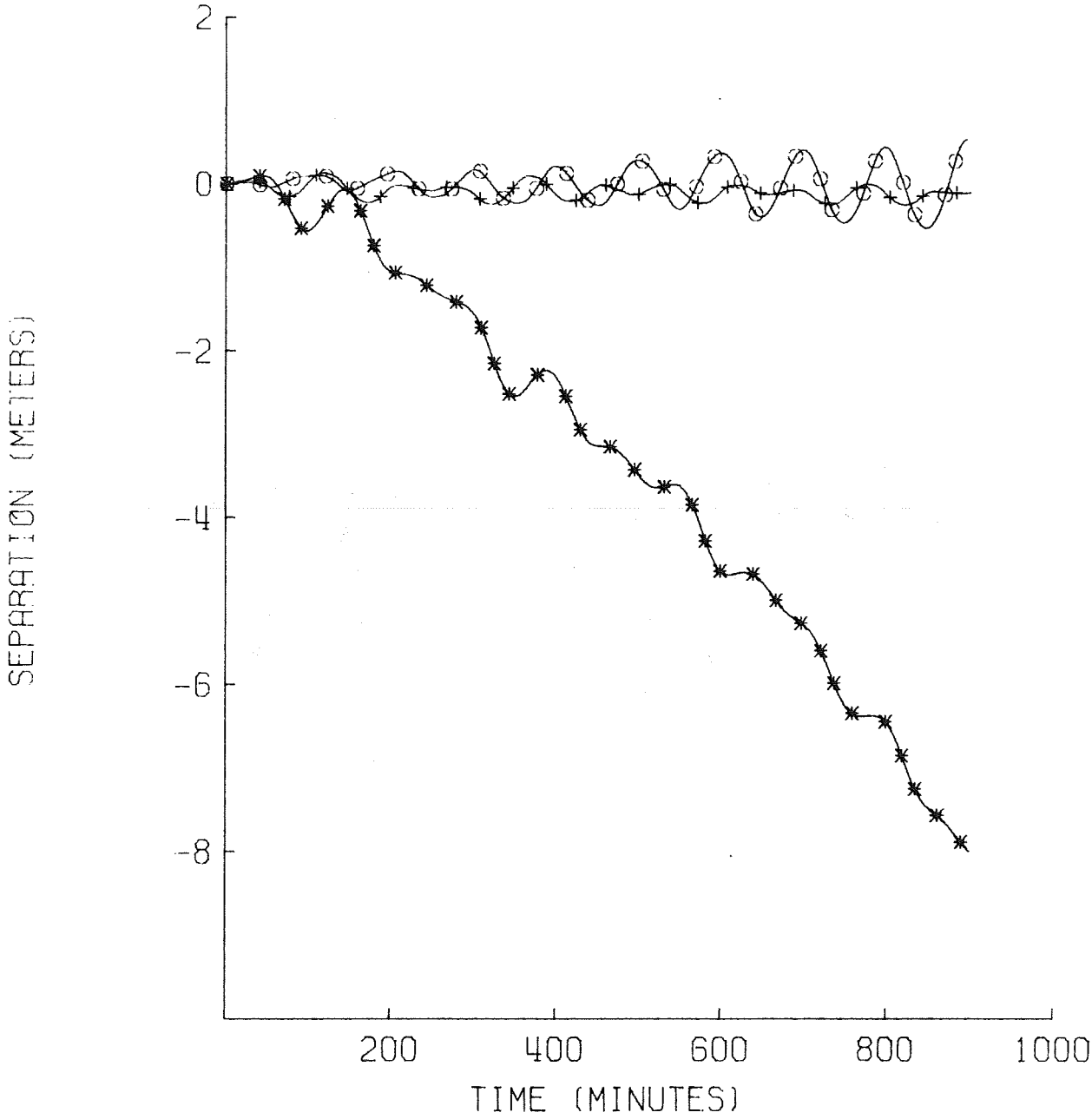
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(14 , 11) = -.0058
FACTØR USED IS 1.000000

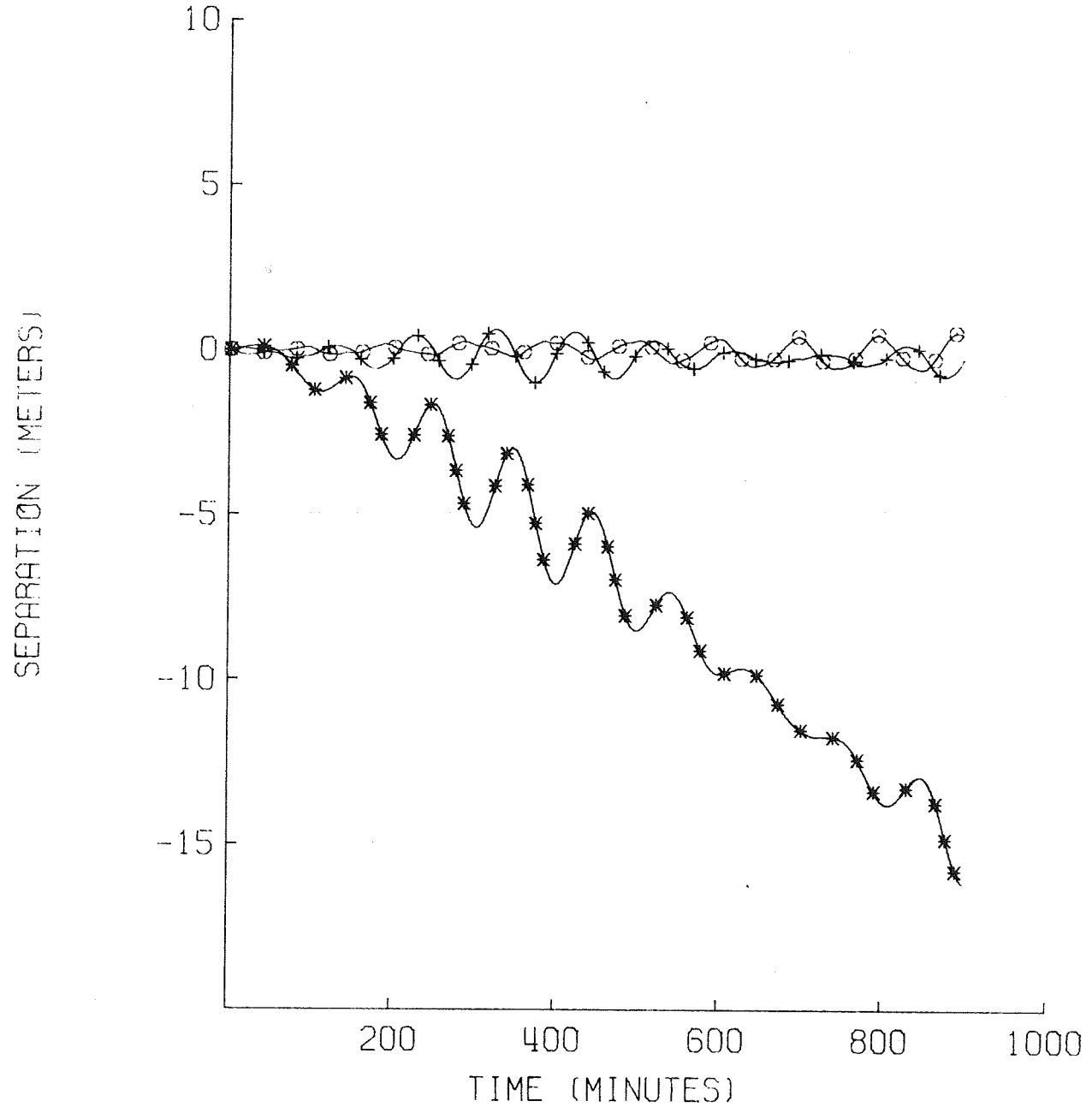
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⏲) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(14 , 12) = -.0195
FACTØR USED IS 1.000000

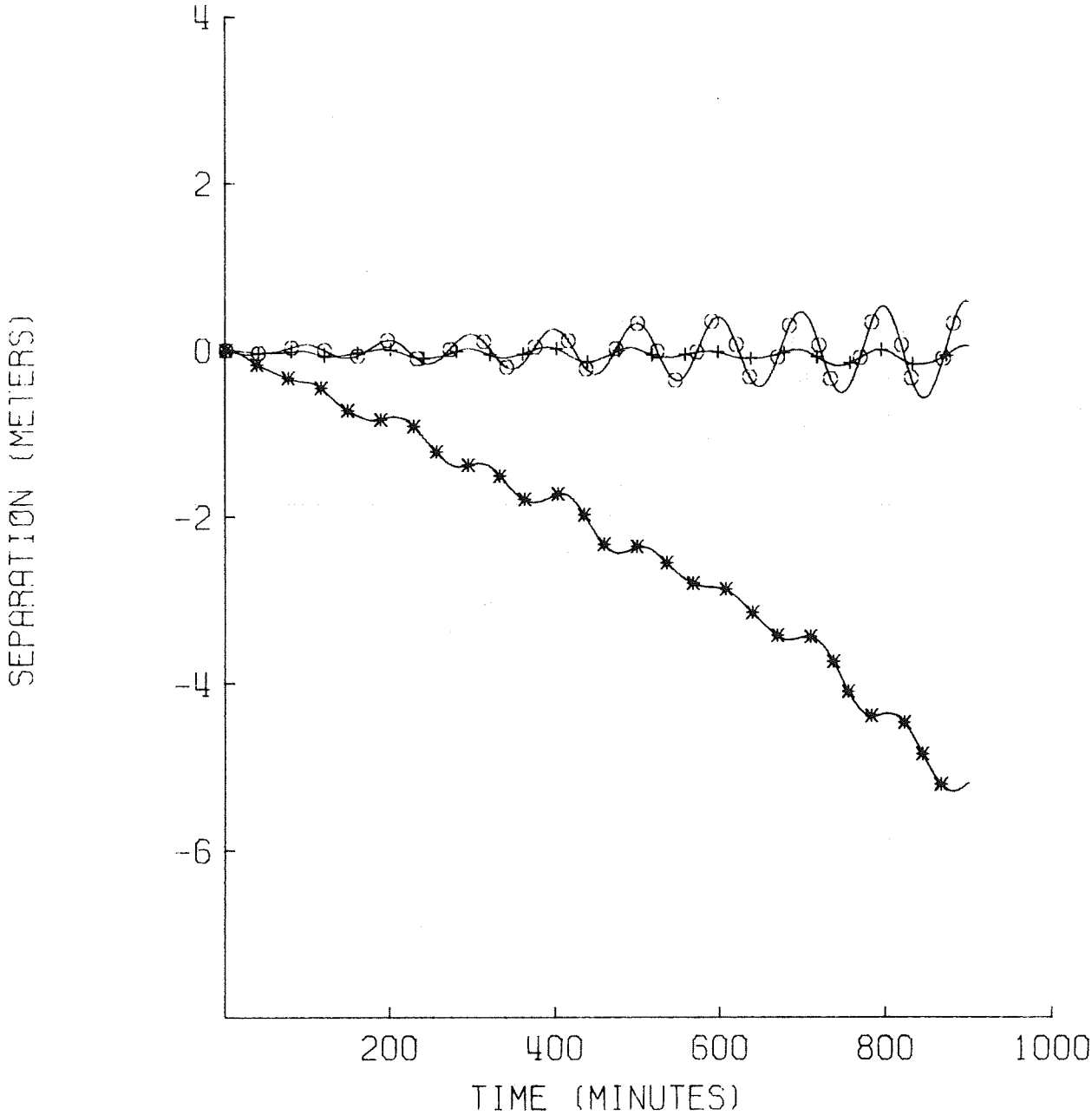
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(14 , 12) = -.0005
FACTØR USED IS 1.000000

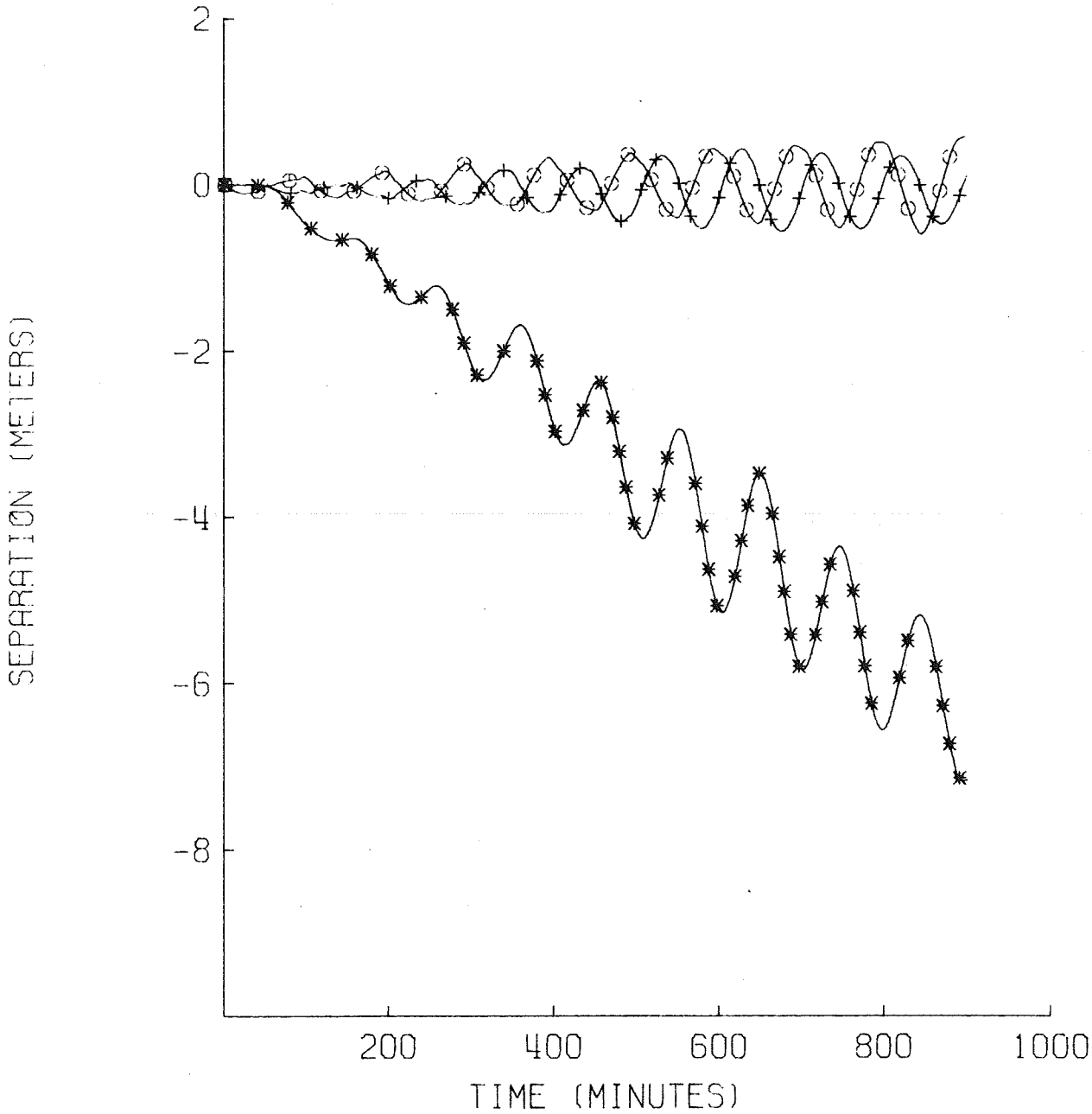
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊘) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(14 , 13) = .0185
FACTOR USED IS 1.000000

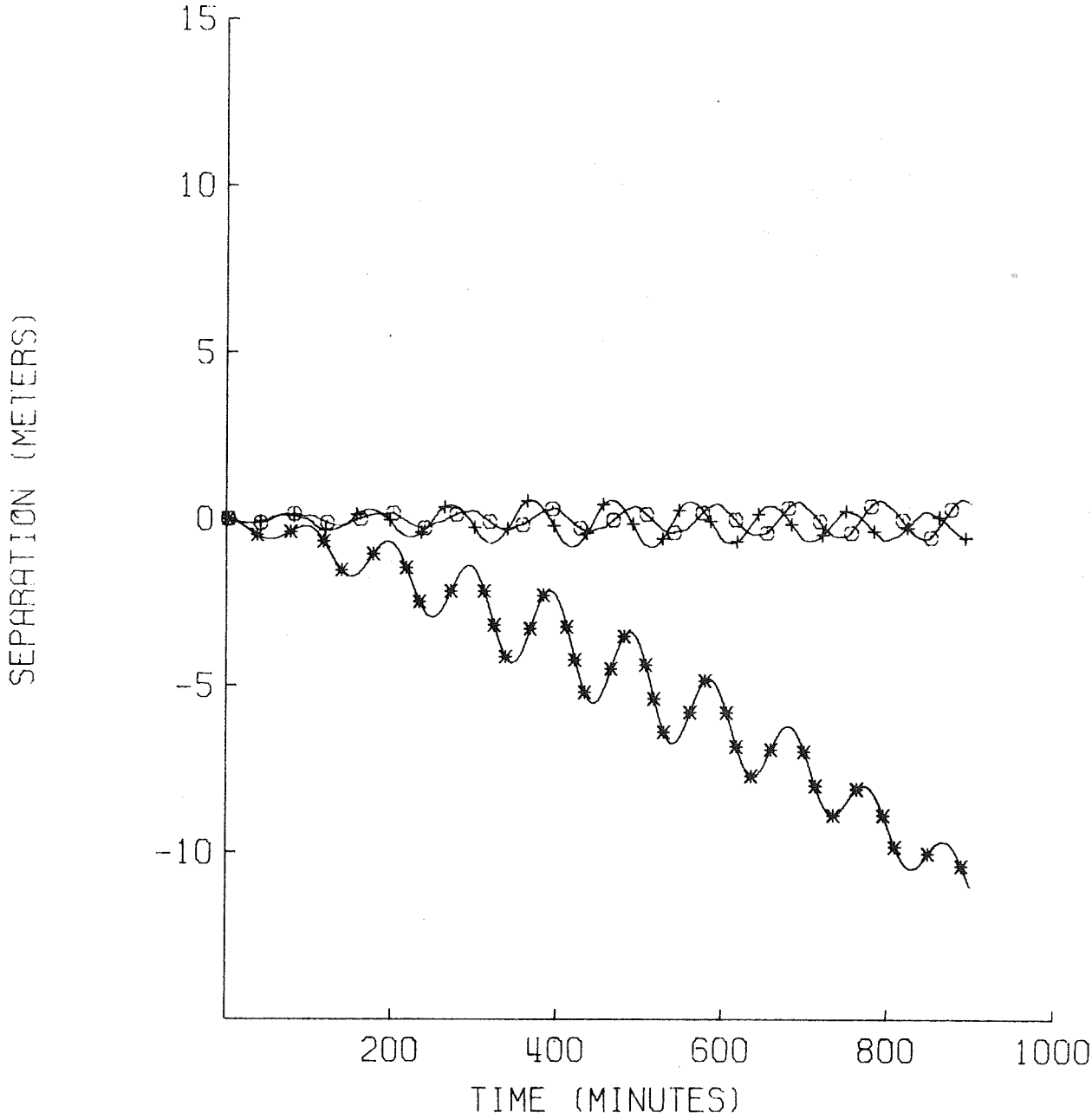
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊘) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(14 , 13) = .0274
FACTØR USED IS 1.000000

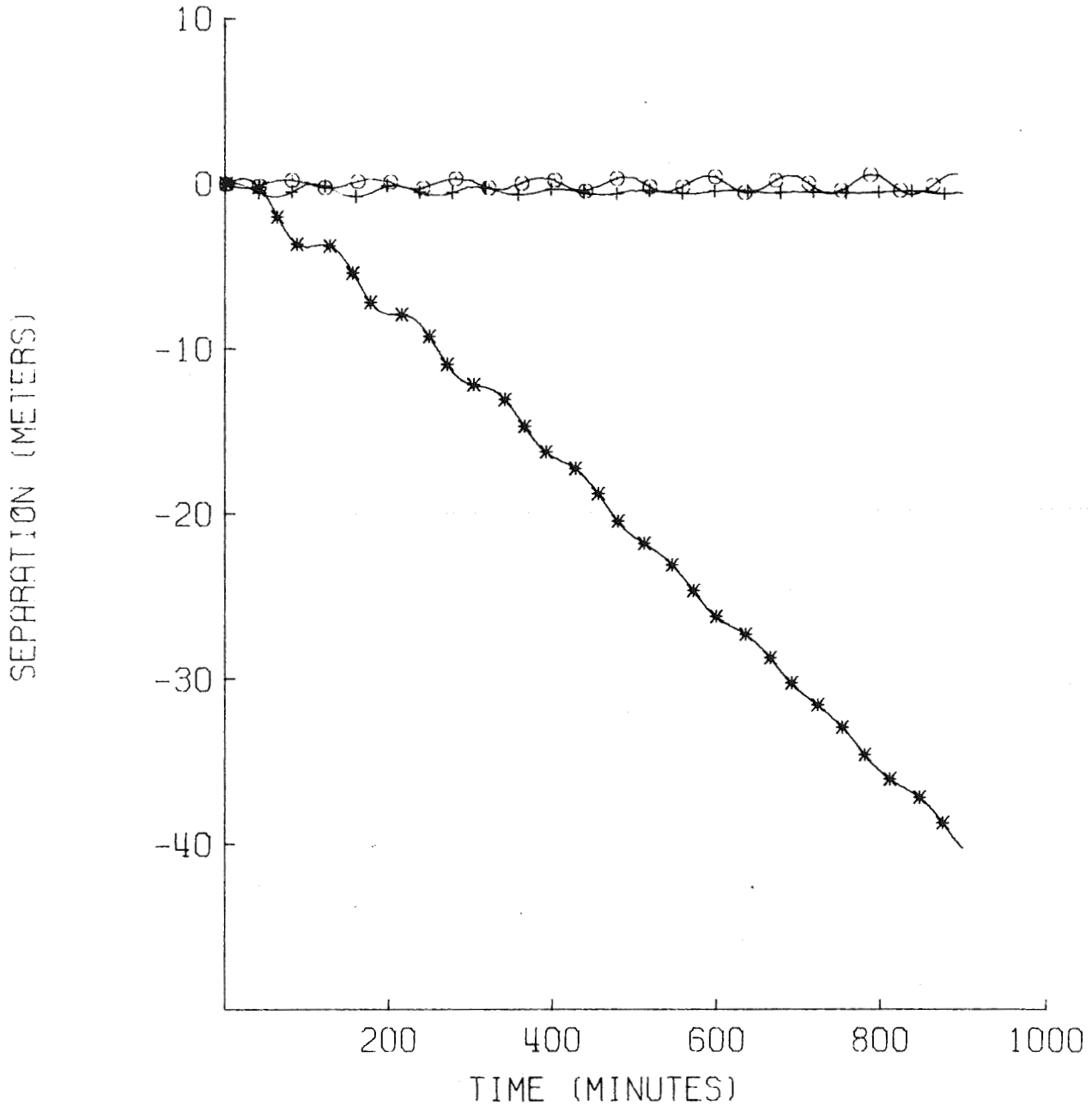
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊕) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(14 , 14) = -.0511
FACTØR USED IS 1.000000

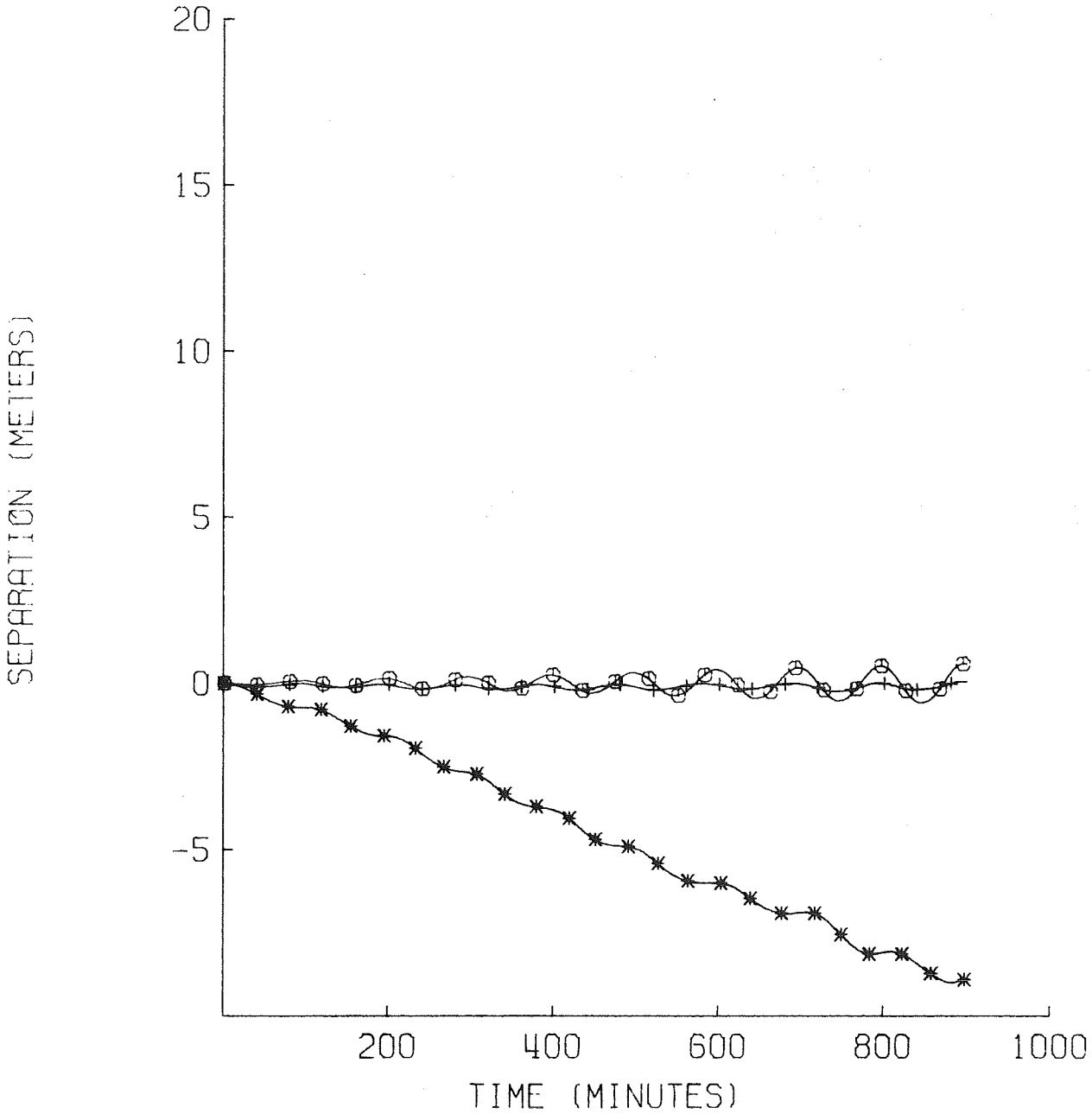
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(14 , 14) = -.0046
FACTØR USED IS 1.000000

(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊕) BI-NØRMAL CRØSS-TRACK



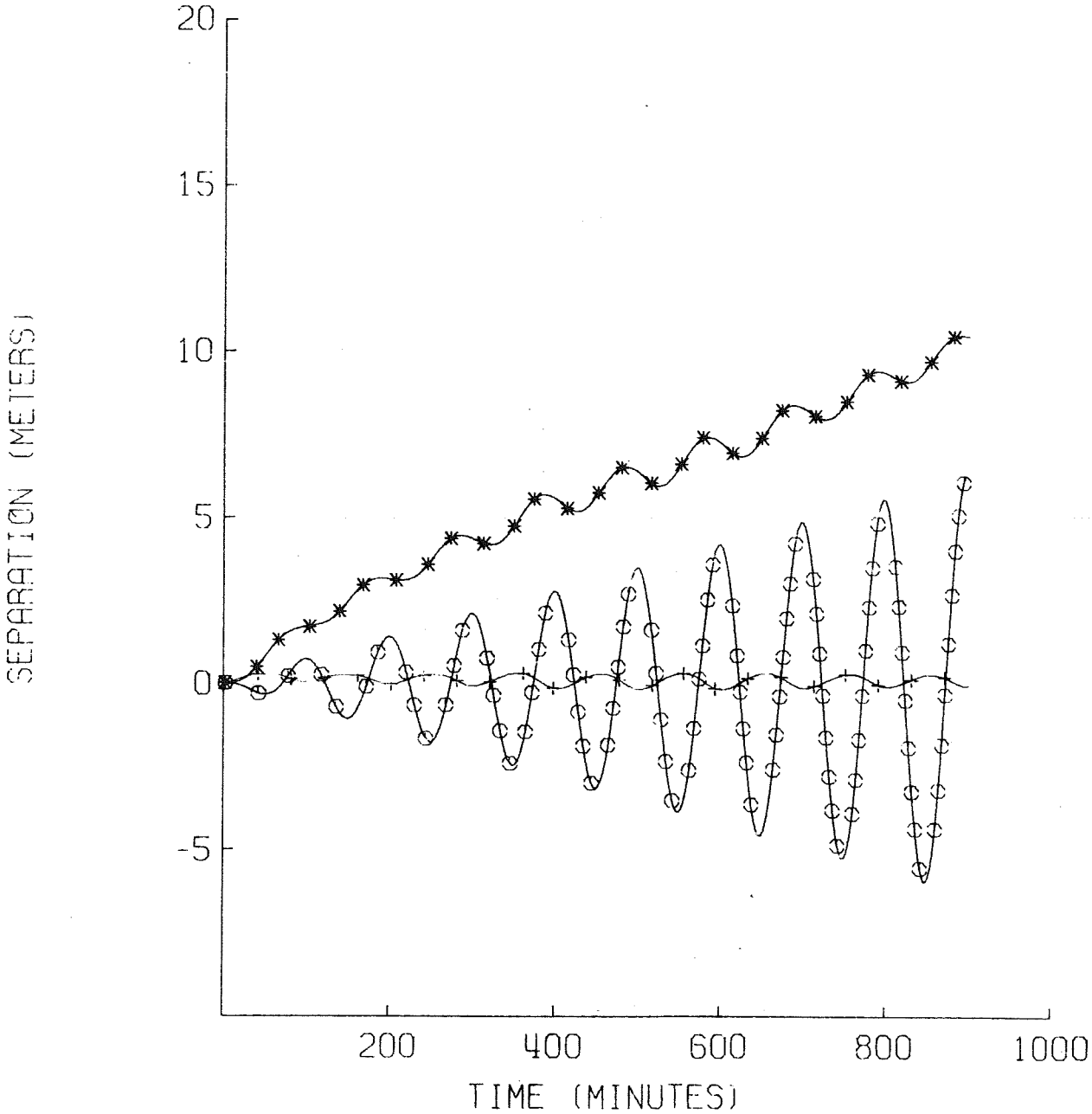
SECTION II

GRAPHICAL OUTPUT FOR HARMONIC VALUFS FQUAL TO PUBLISHFD VALUFS FOR STANDARD FRROR OF HARMONICS

M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(2 ,0) = -484.1803
FACTOR USED IS 1.000024

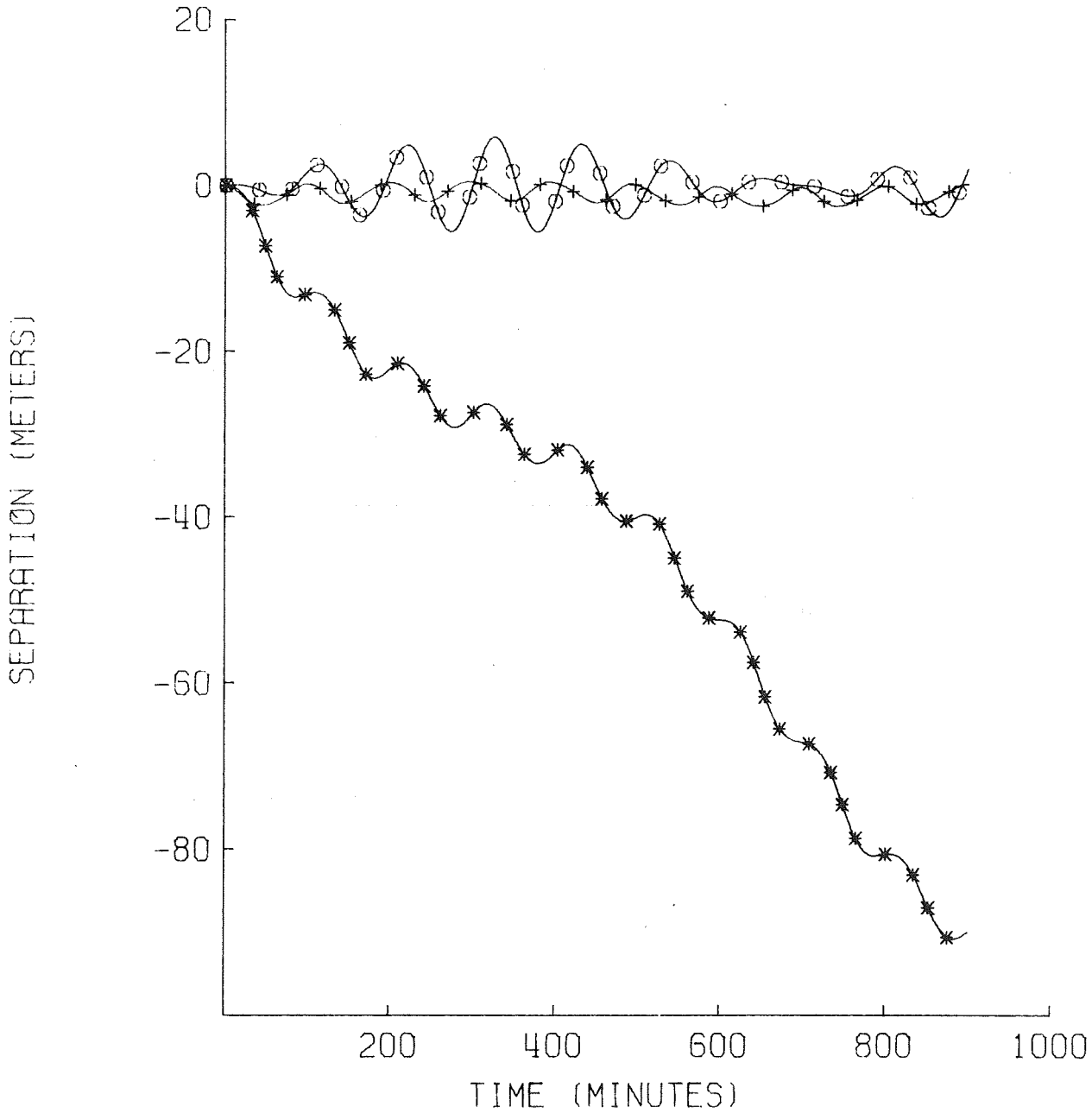
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(2 ,2) = 2.3241
FACTOR USED IS .023235

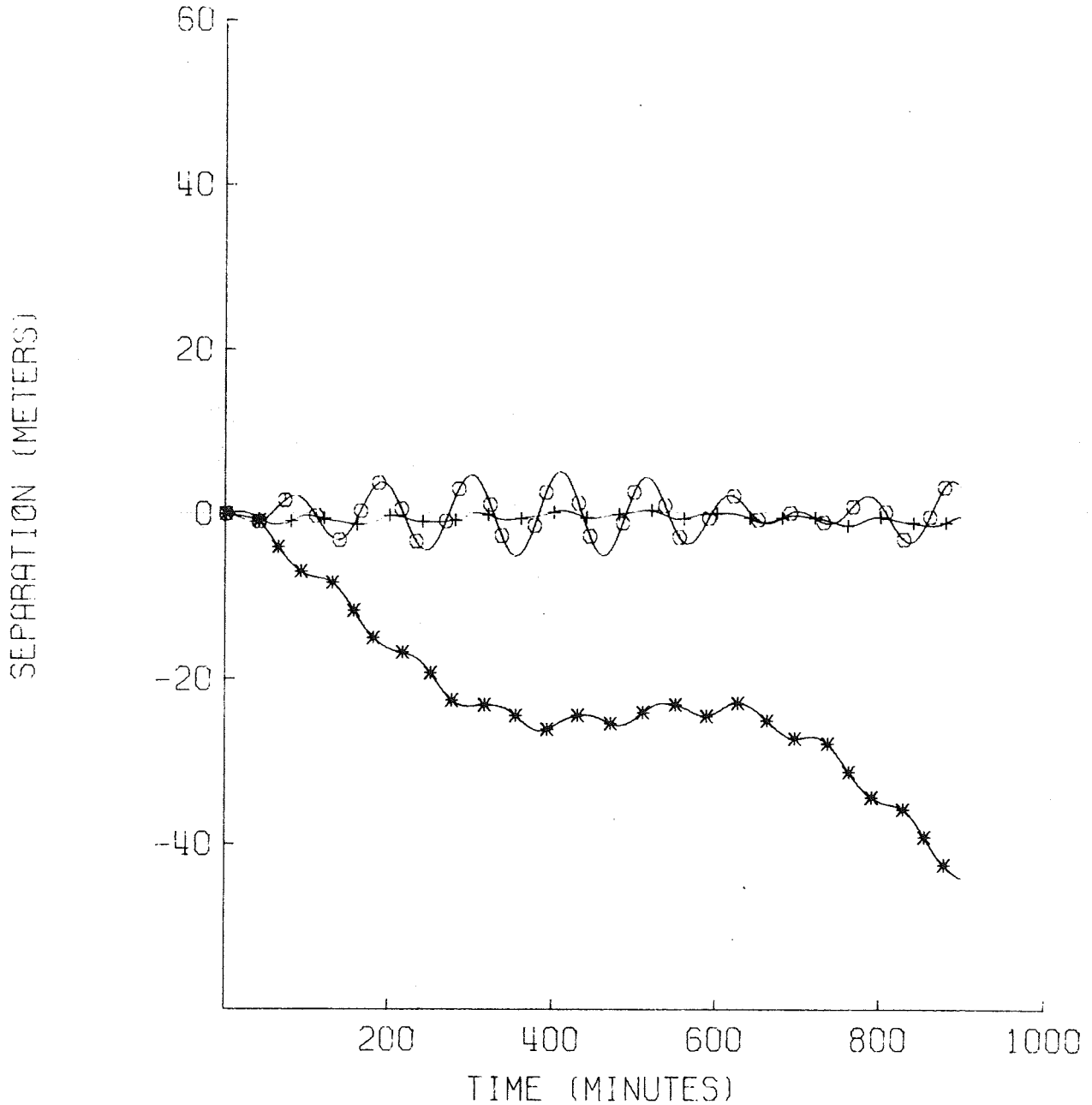
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊙) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(2 ,2) = -1.3106
FACTØR USED IS .041203

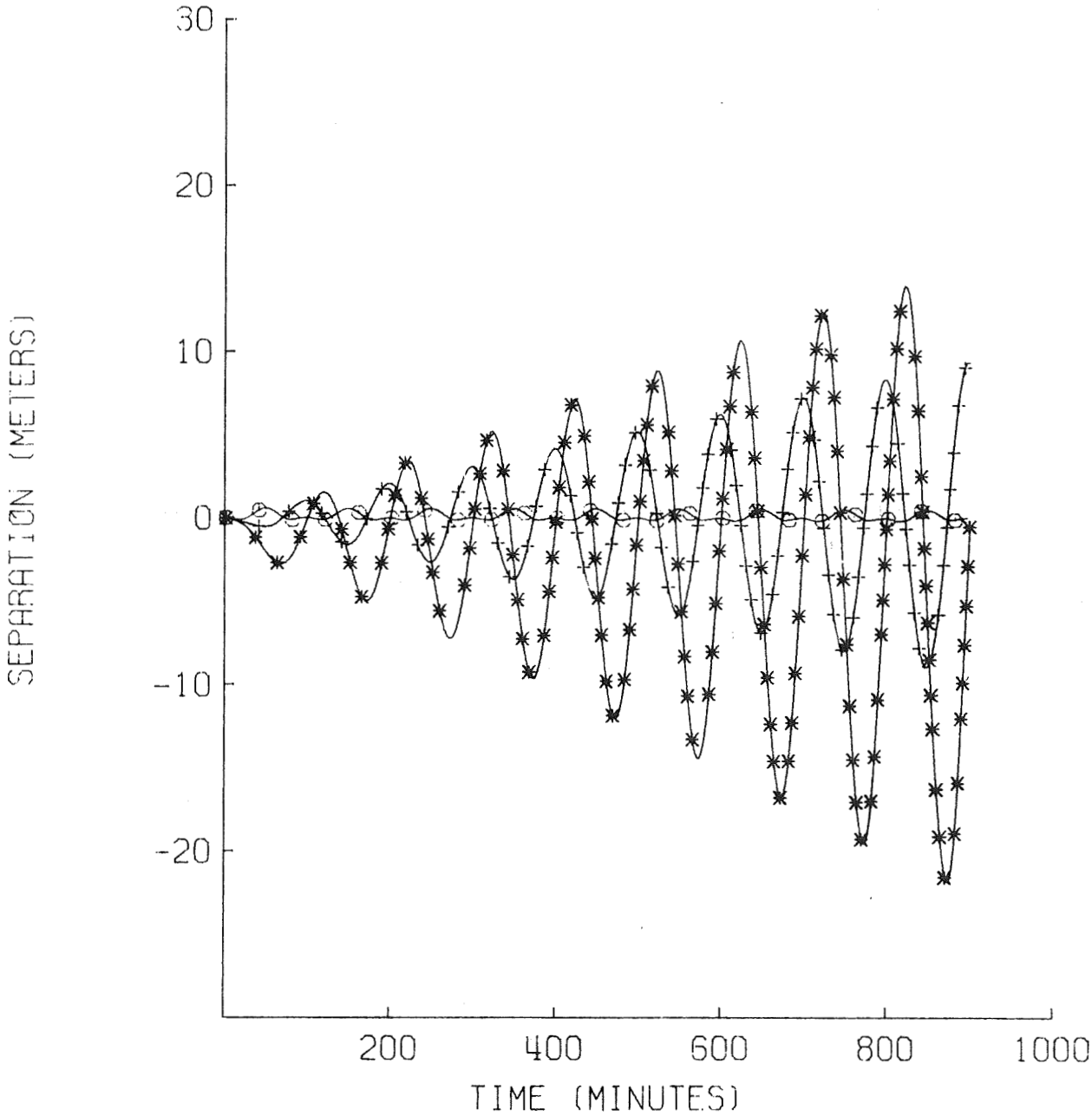
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊘) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(3 ,0) = .9025
FACTØR USED IS 1.034238

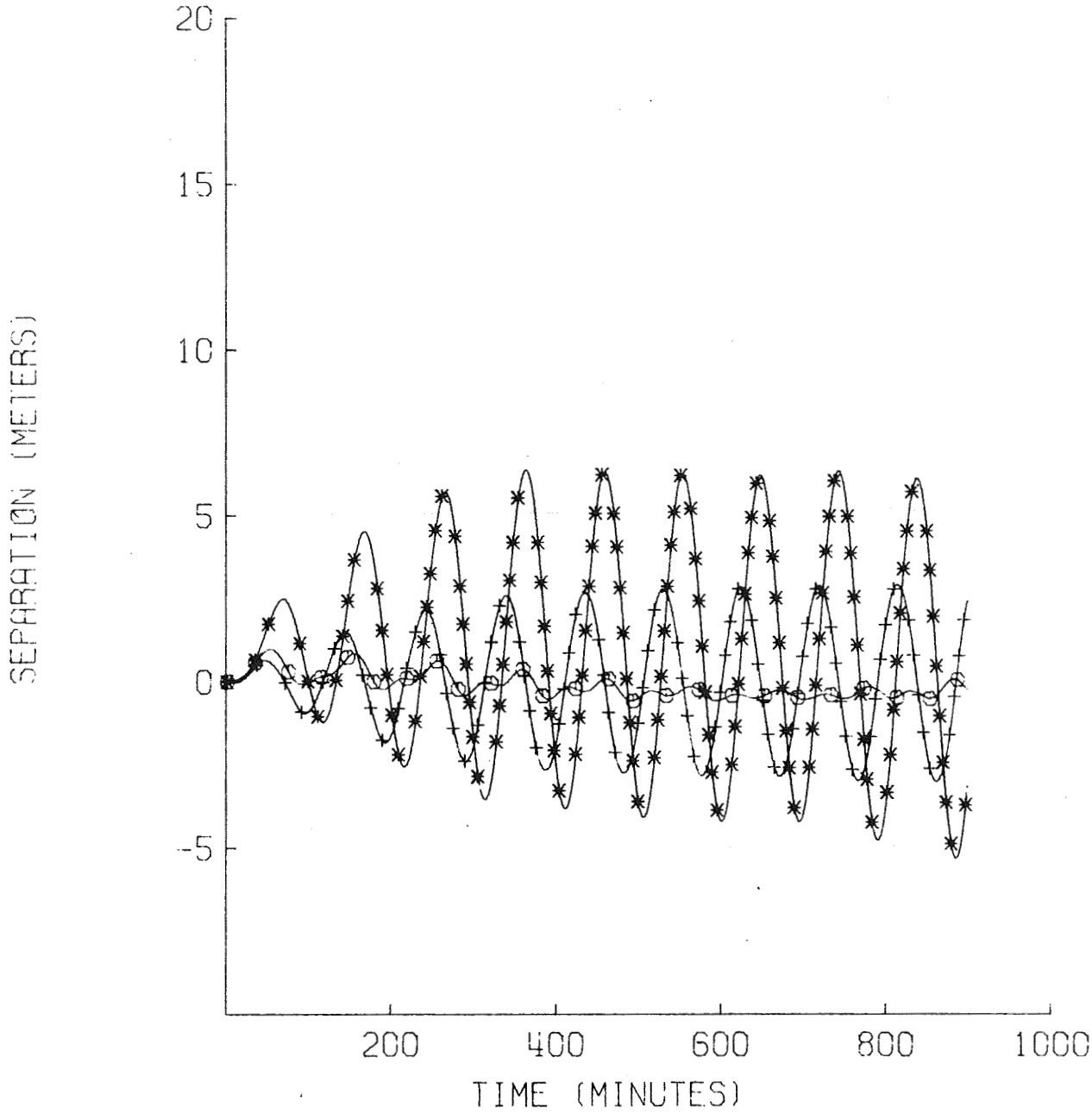
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⦶) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(3 ,1) = 1.7842
FACTOR USED IS .027295

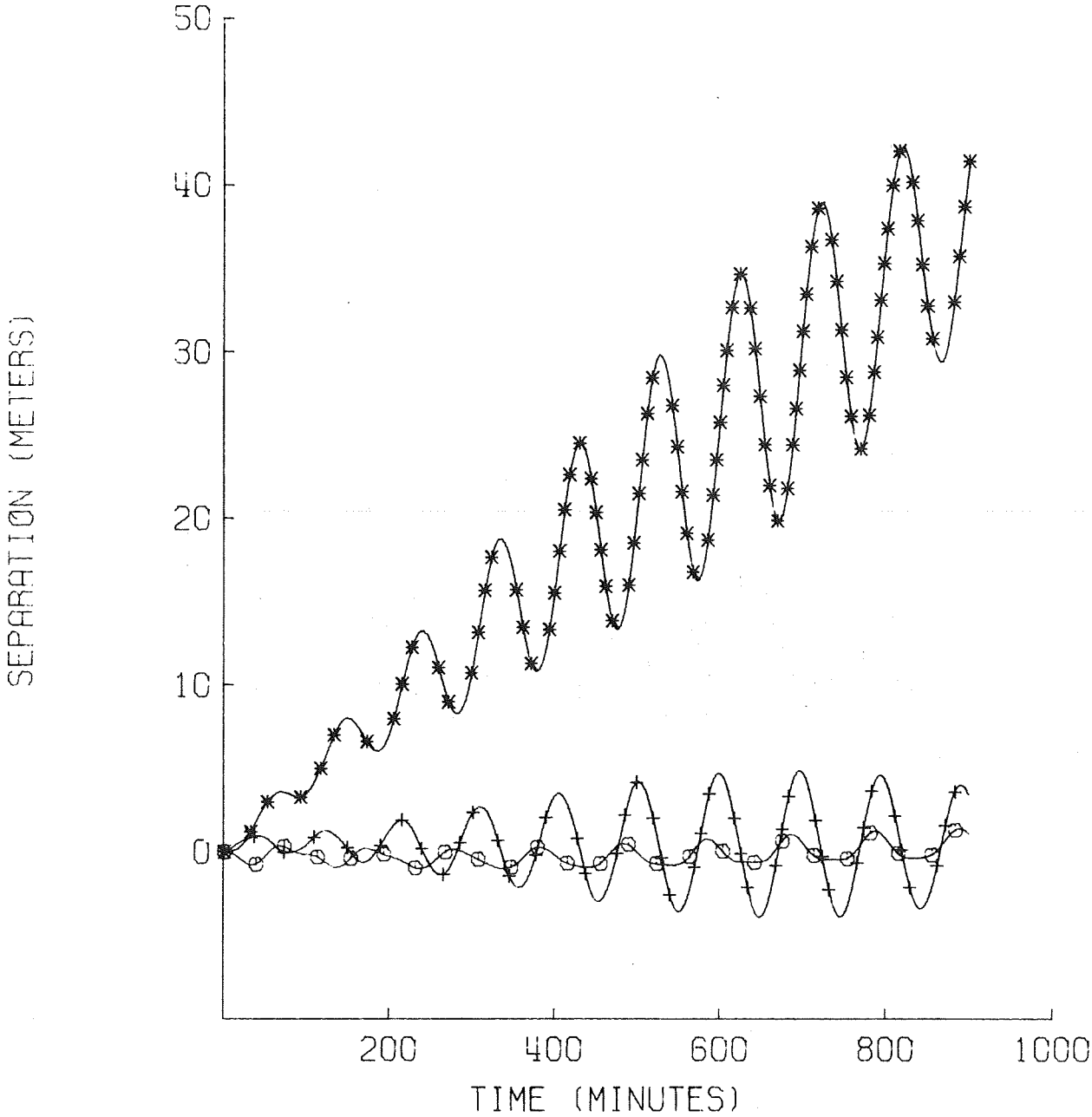
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(3 ,1) = .2601
FACTOR USED IS .199923

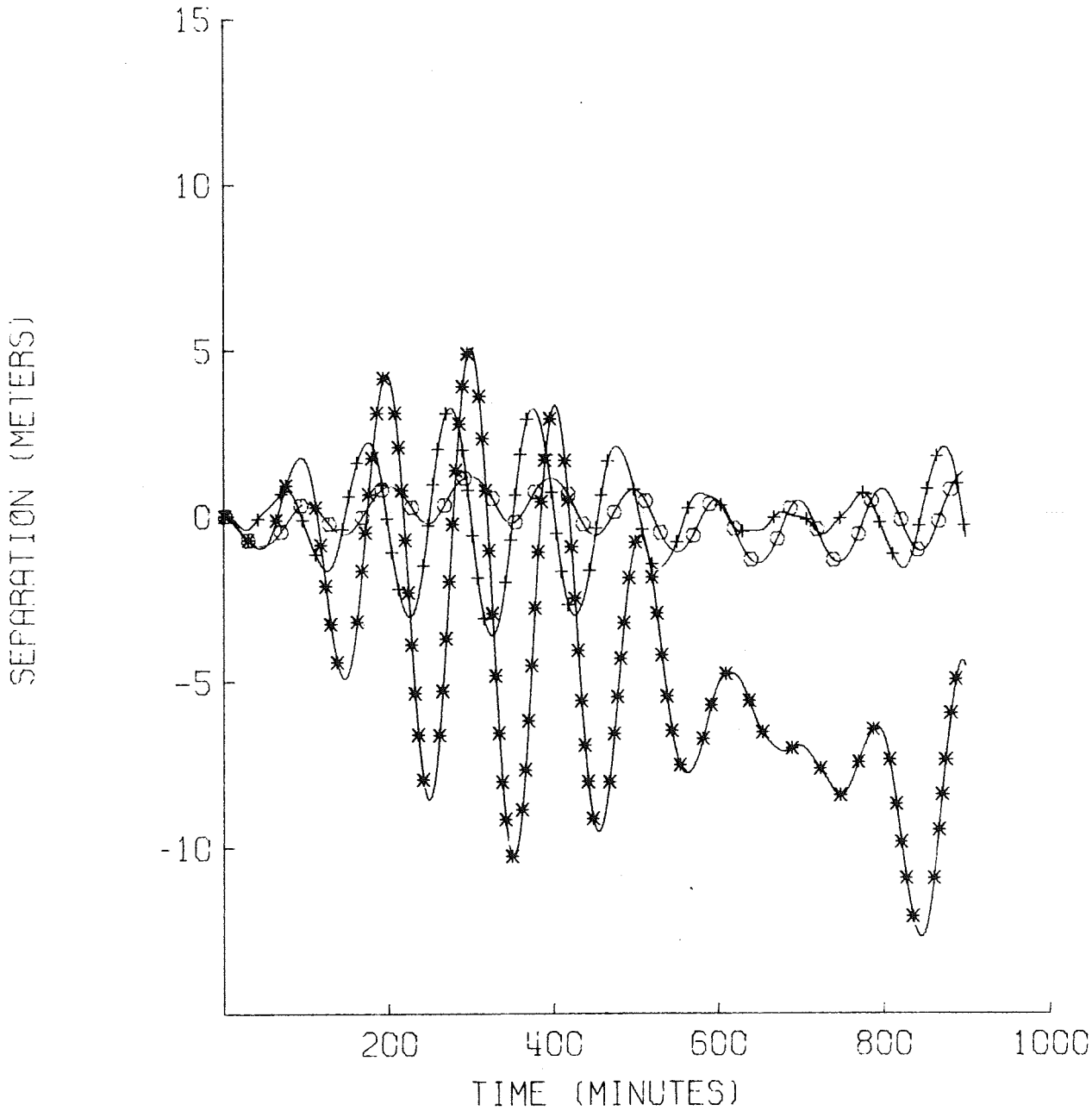
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊖) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(3 ,2) = .7224
FACTØR USED IS .066445

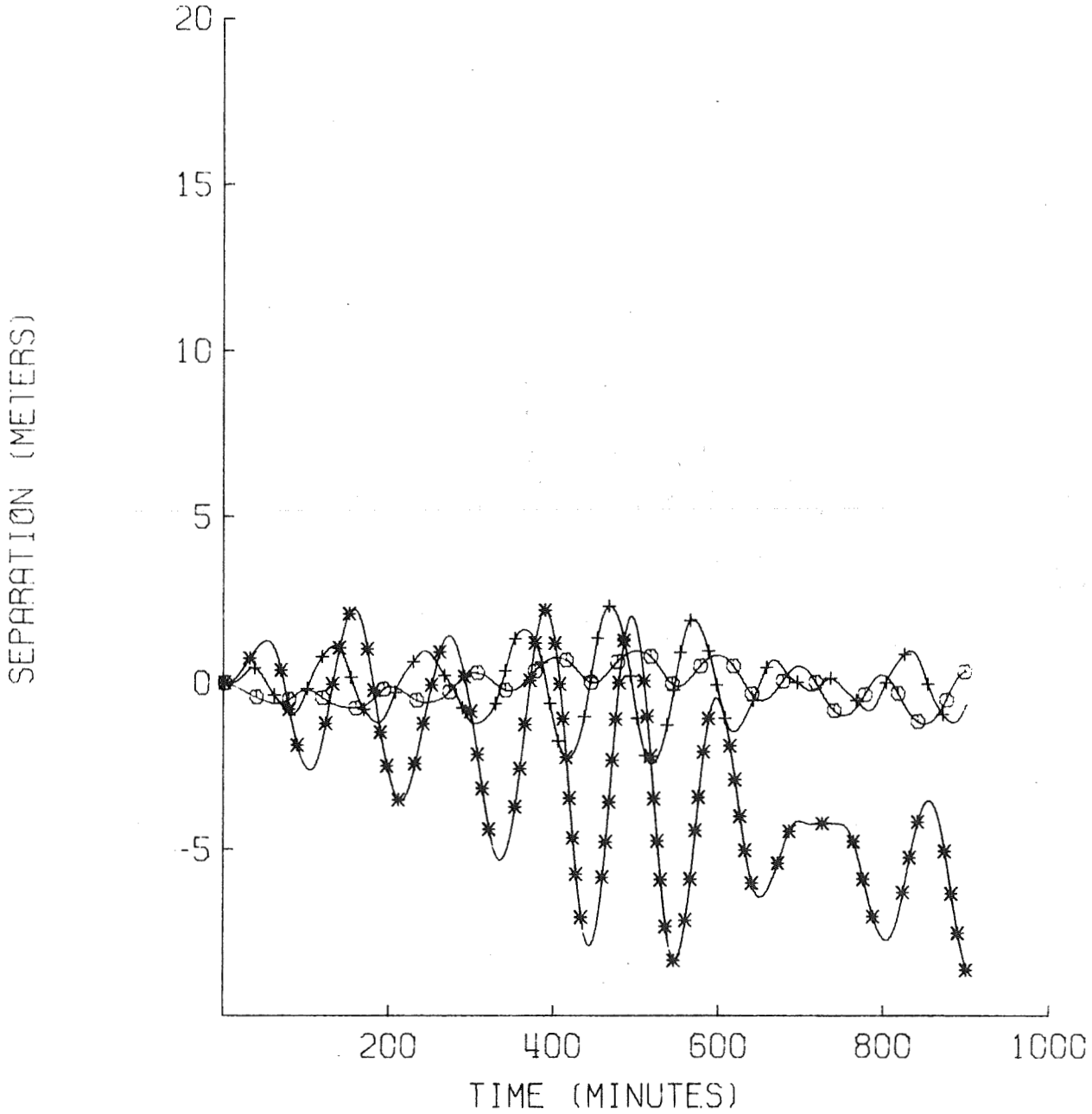
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(3 ,2) = -.5755
FACTOR USED IS .078193

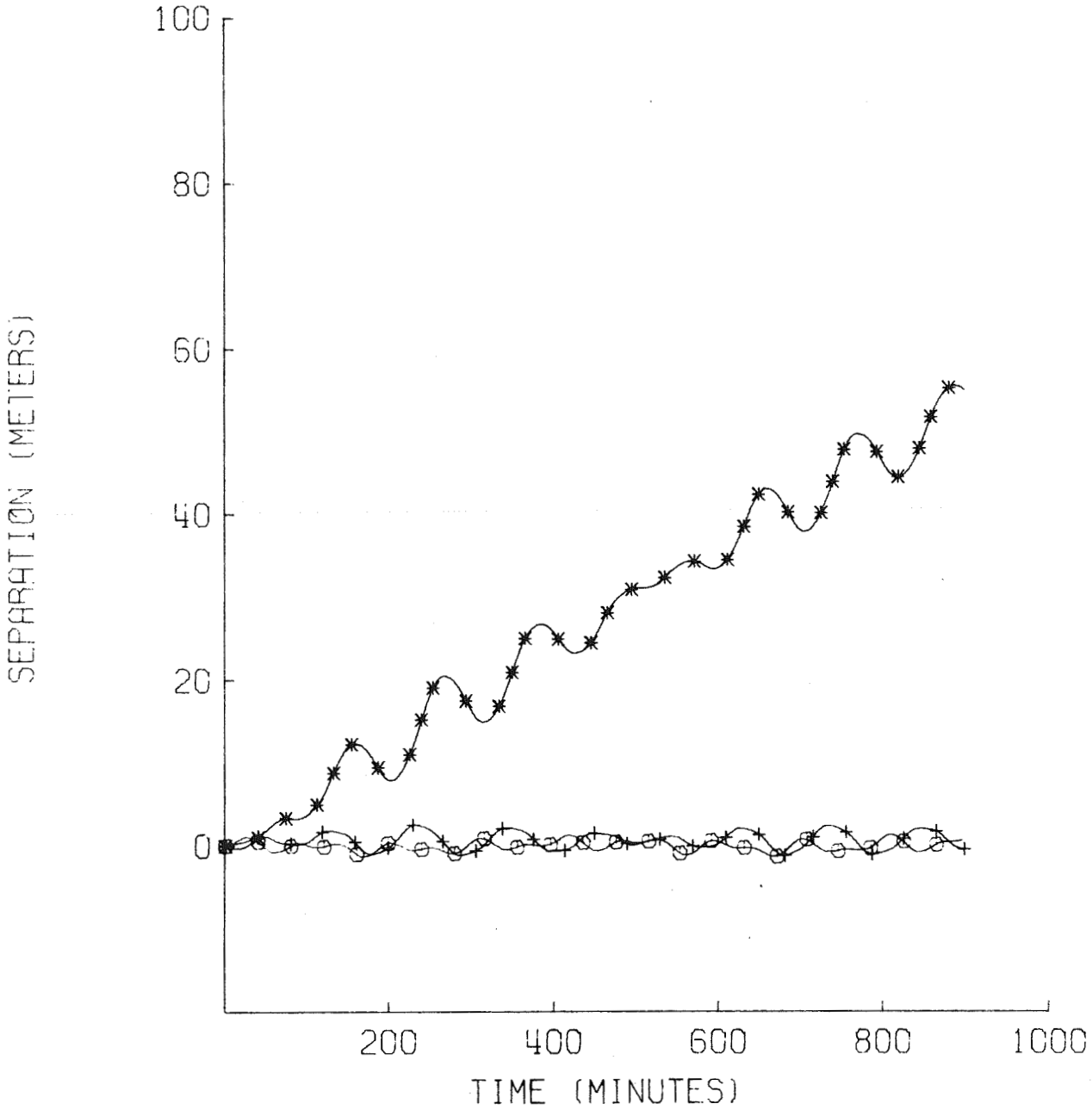
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊕) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(3 ,3) = .7240
FACTØR USED IS .088122

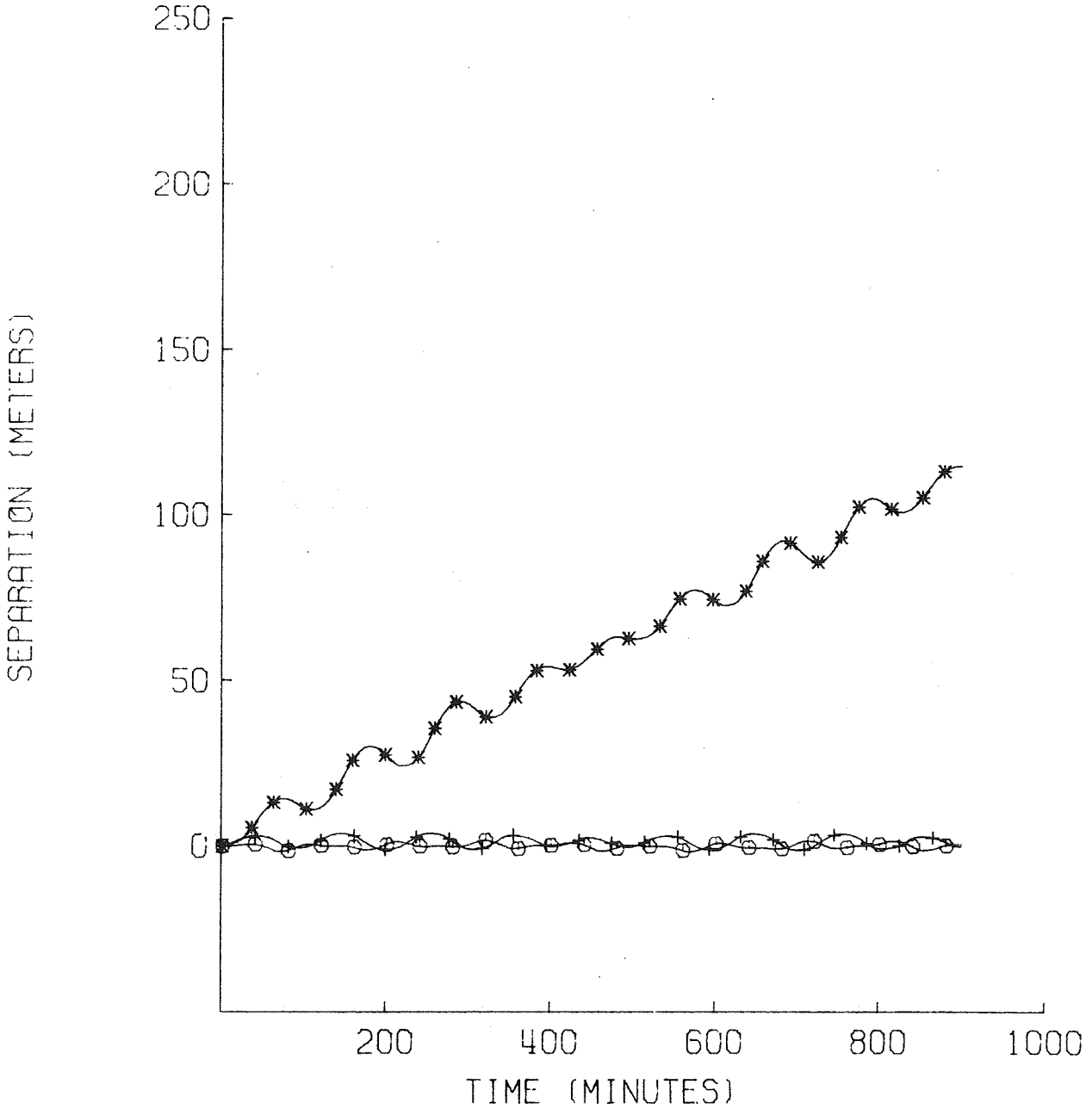
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(3 ,3) = 1.3860
FACTØR USED IS .048341

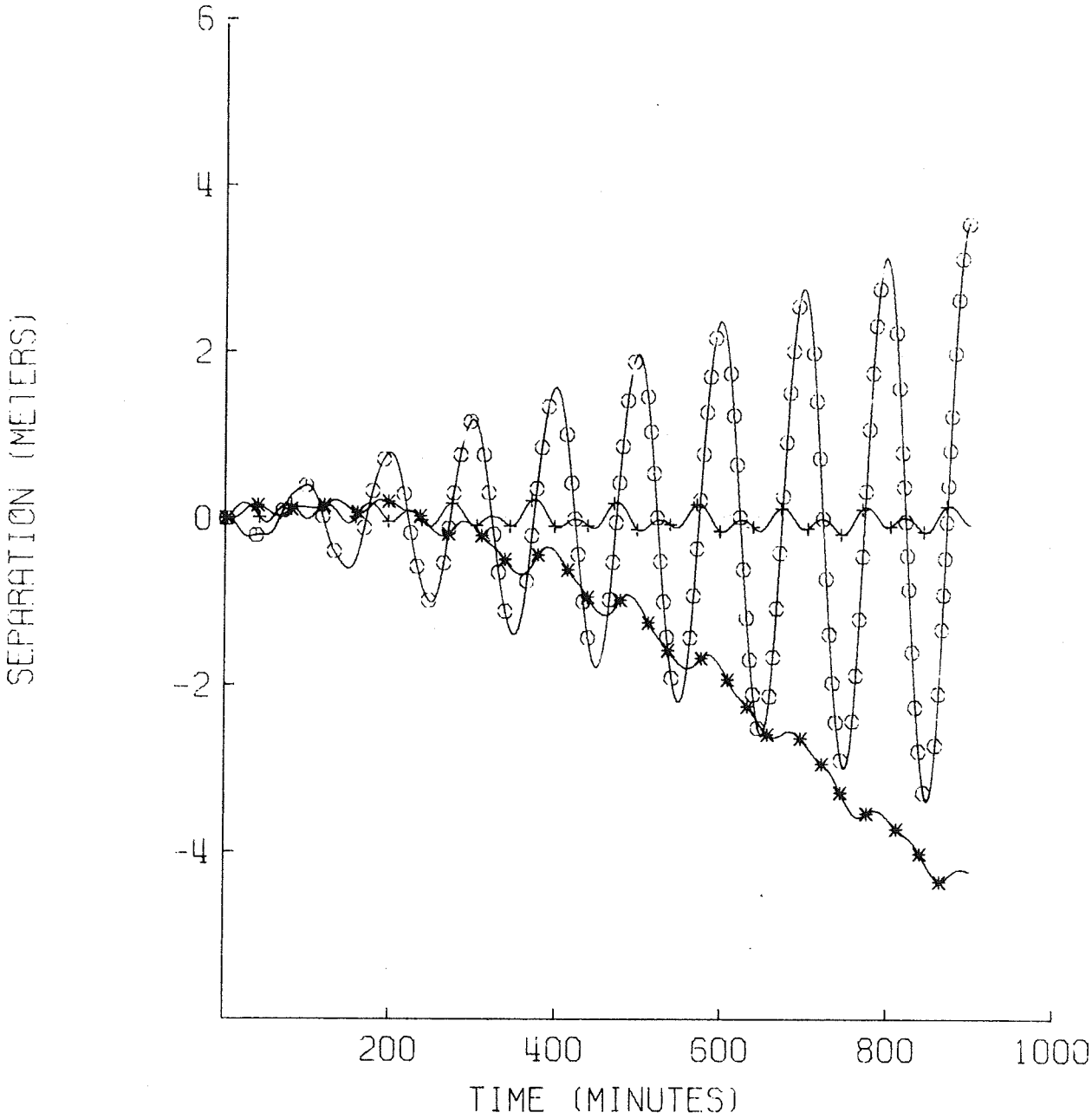
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(4 ,0) = .5608
FACTOR USED IS 1.034415

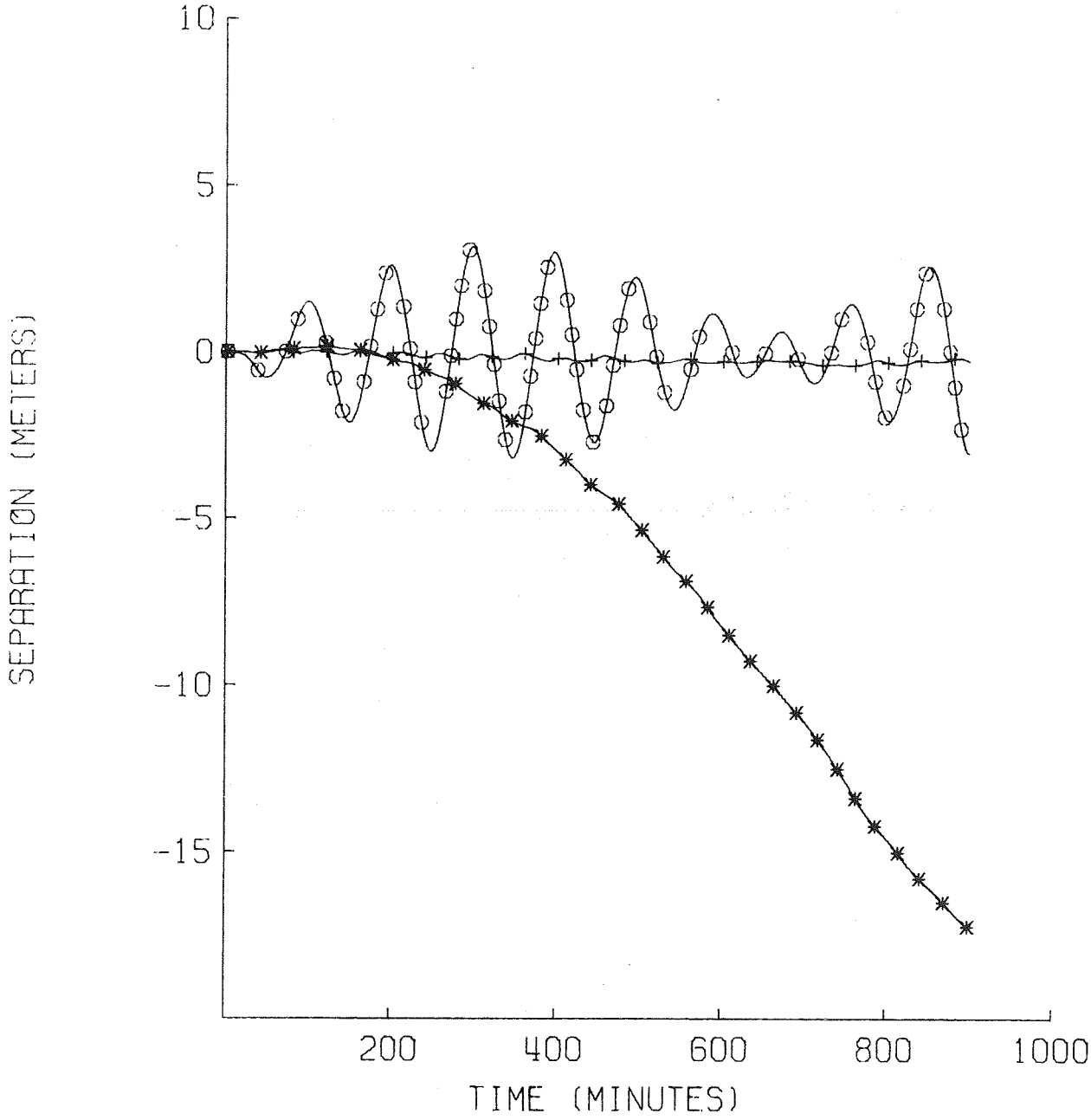
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(4 ,1) = -.5289
FACTØR USED IS .057289

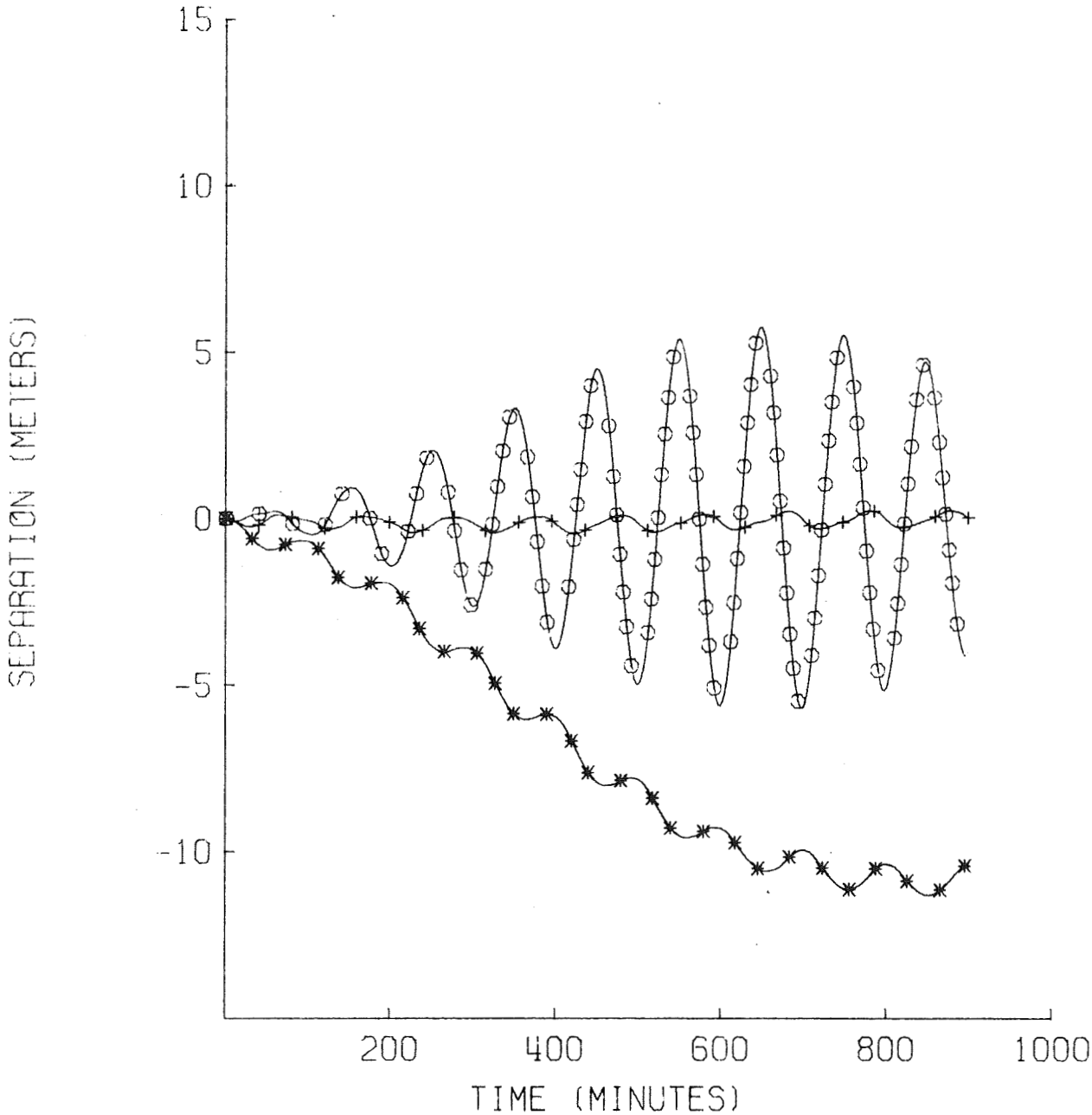
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(4 ,1) = -.4290
FACTØR USED IS .062238

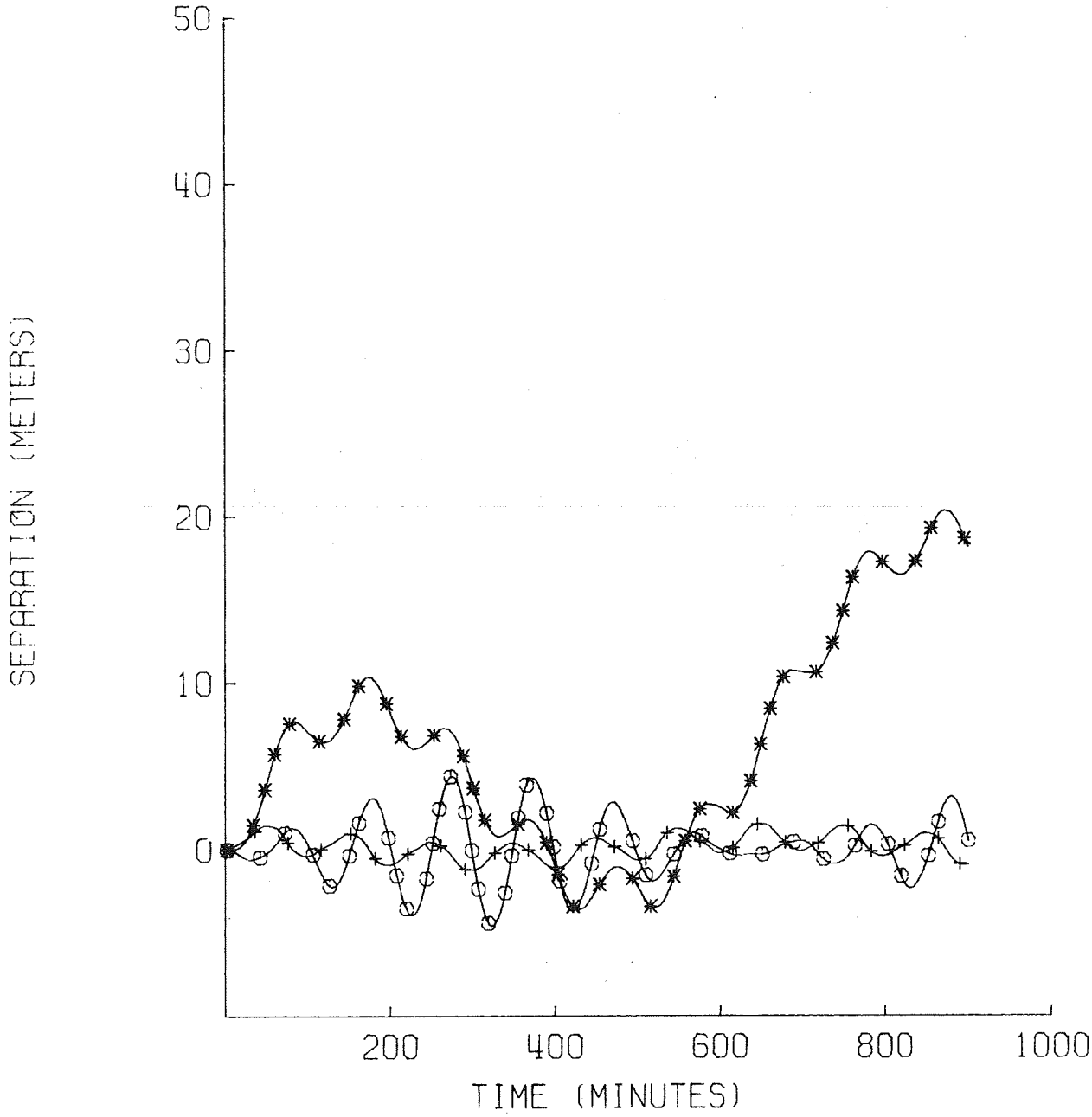
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK



M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR C(4 ,2) = .1966
FACTOR USED IS .217701

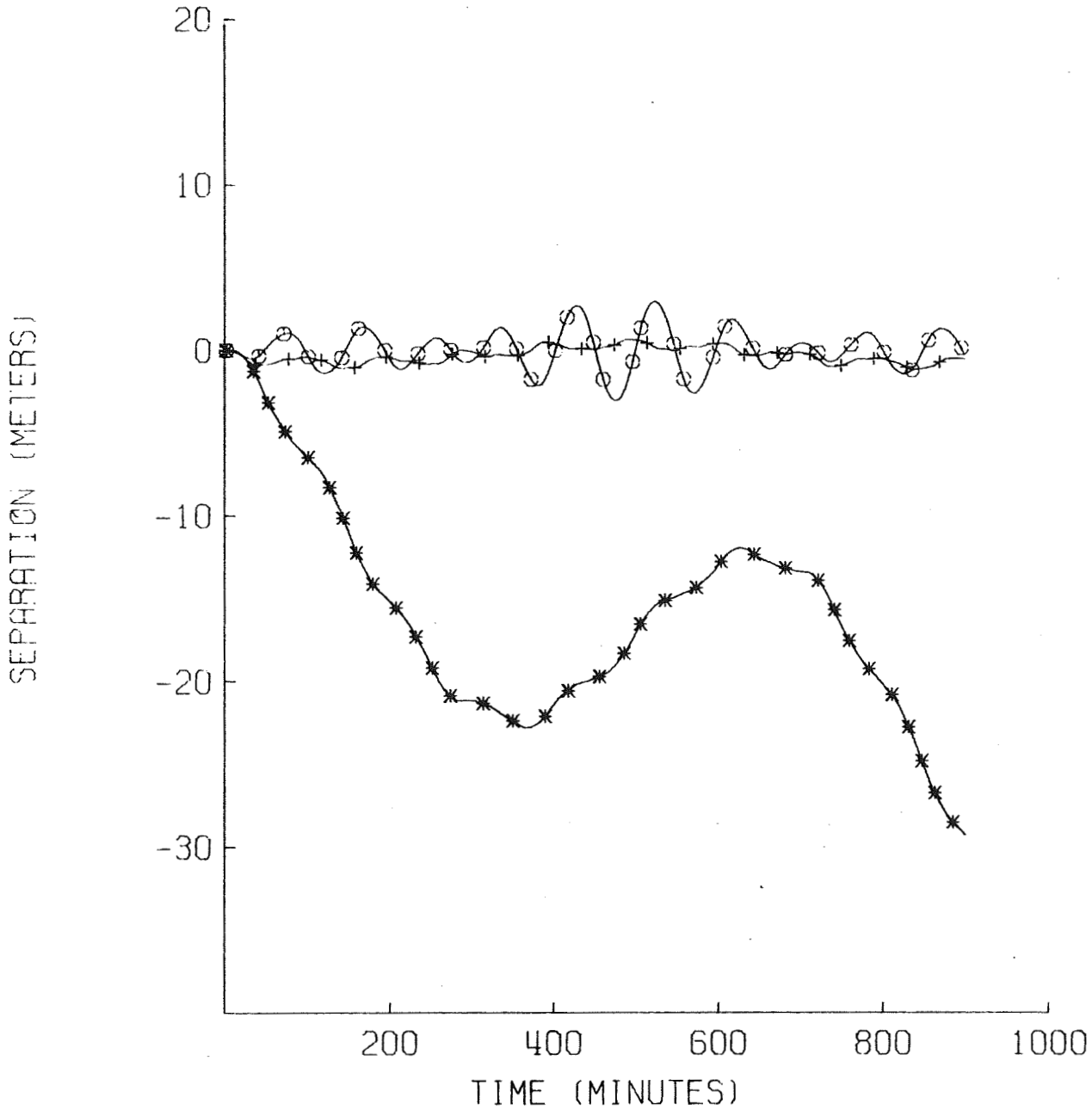
(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊙) BI-NORMAL CROSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(4 ,2) = .5120
FACTØR USED IS .084180

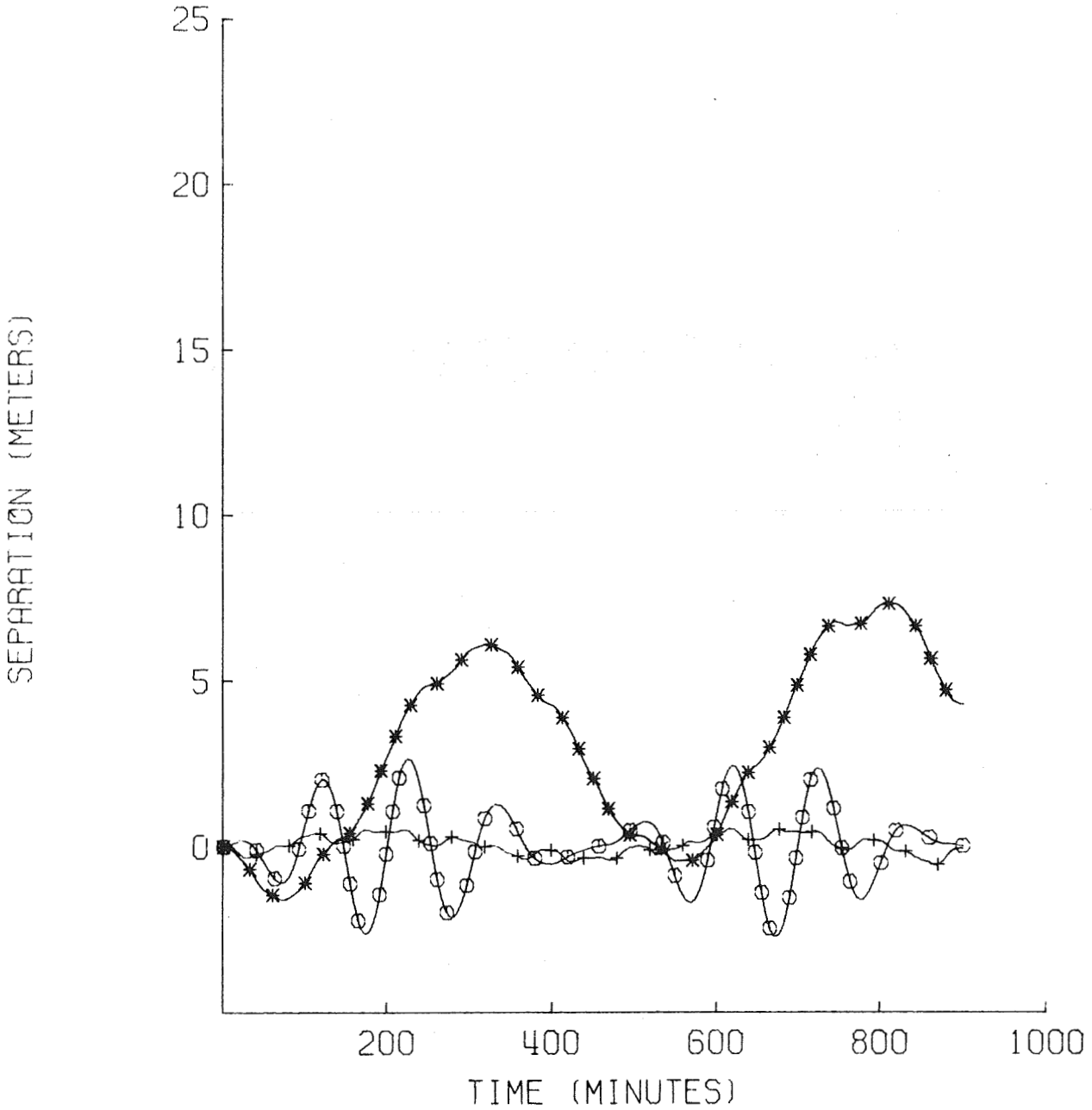
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊘) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(4 ,3) = .8804
FACTØR USED IS .033962

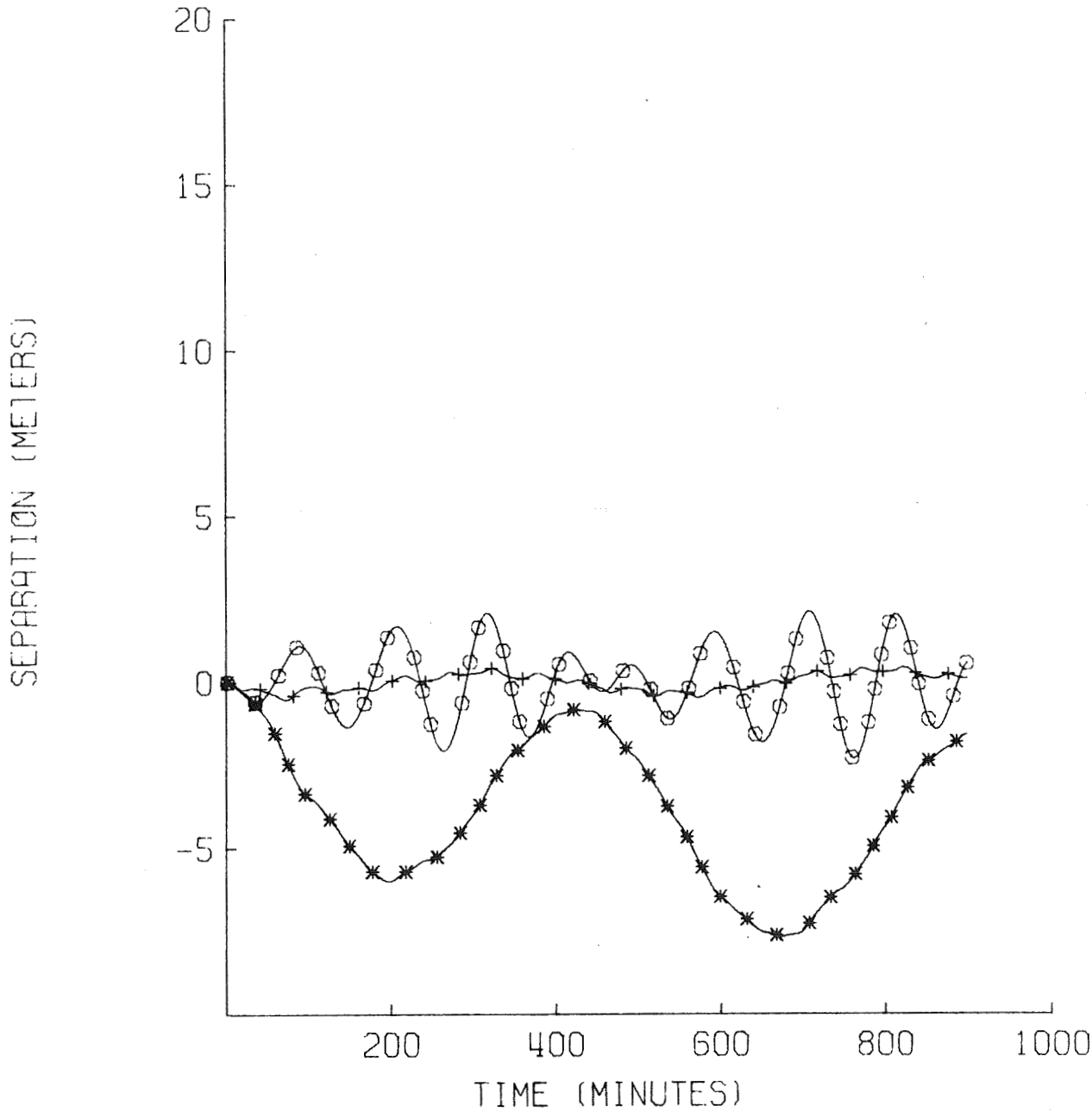
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(4 ,3) = -.2317
FACTØR USED IS .114372

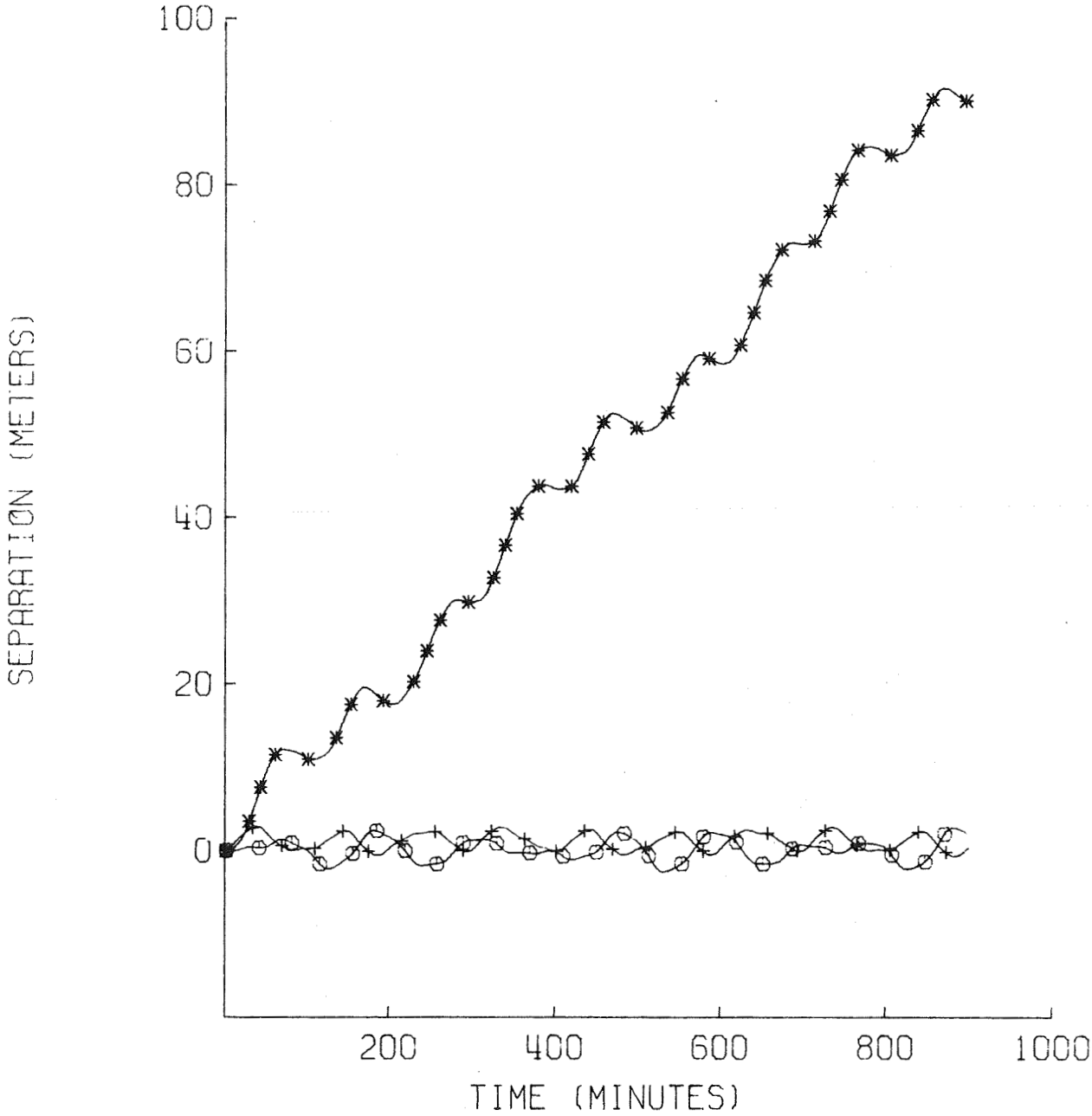
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(4 ,4) = .1861
FACTØR USED IS .395486

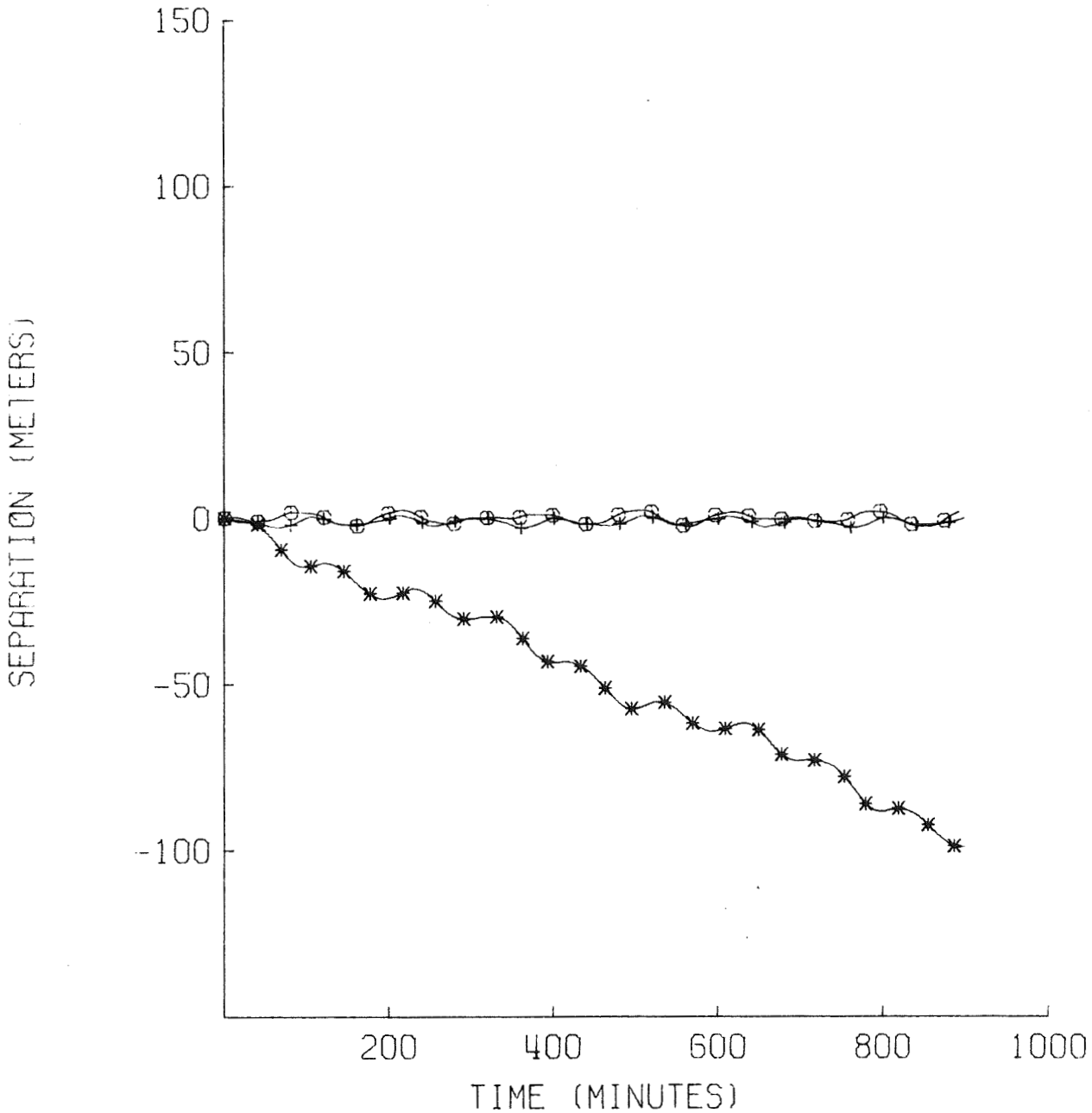
(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK



M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(4 ,4) = .3065
FACTØR USED IS .253181

(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊕) BI-NØRMAL CRØSS-TRACK



SECTION III

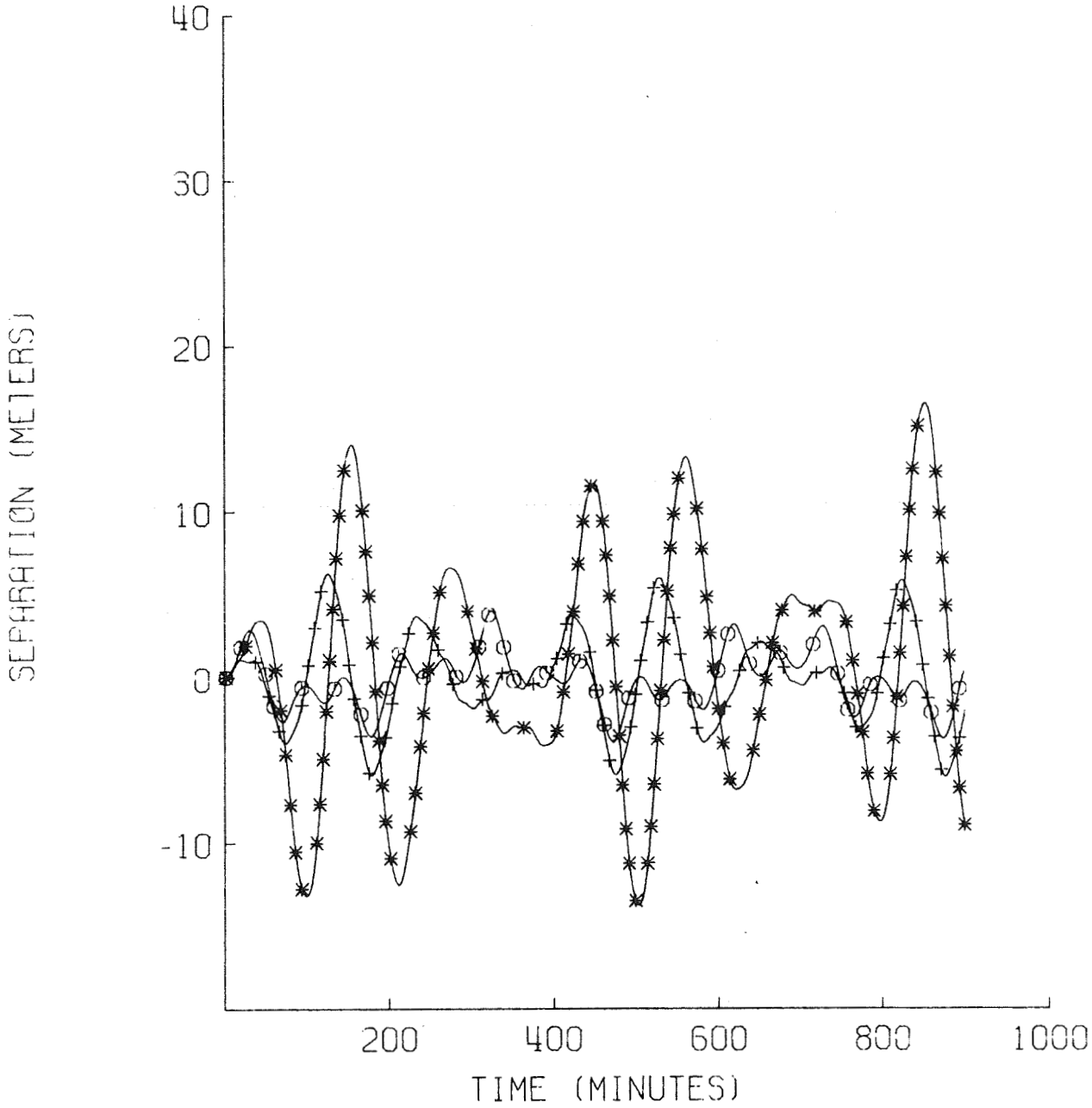
GRAPHICAL OUTPUT FOR SATELLITES OF VARIOUS HEIGHTS

100 MINUTE PERIOD

M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(5 ,4) = .1371
FACTØR USED IS 1.000000

(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⦶) BI-NØRMAL CRØSS-TRACK

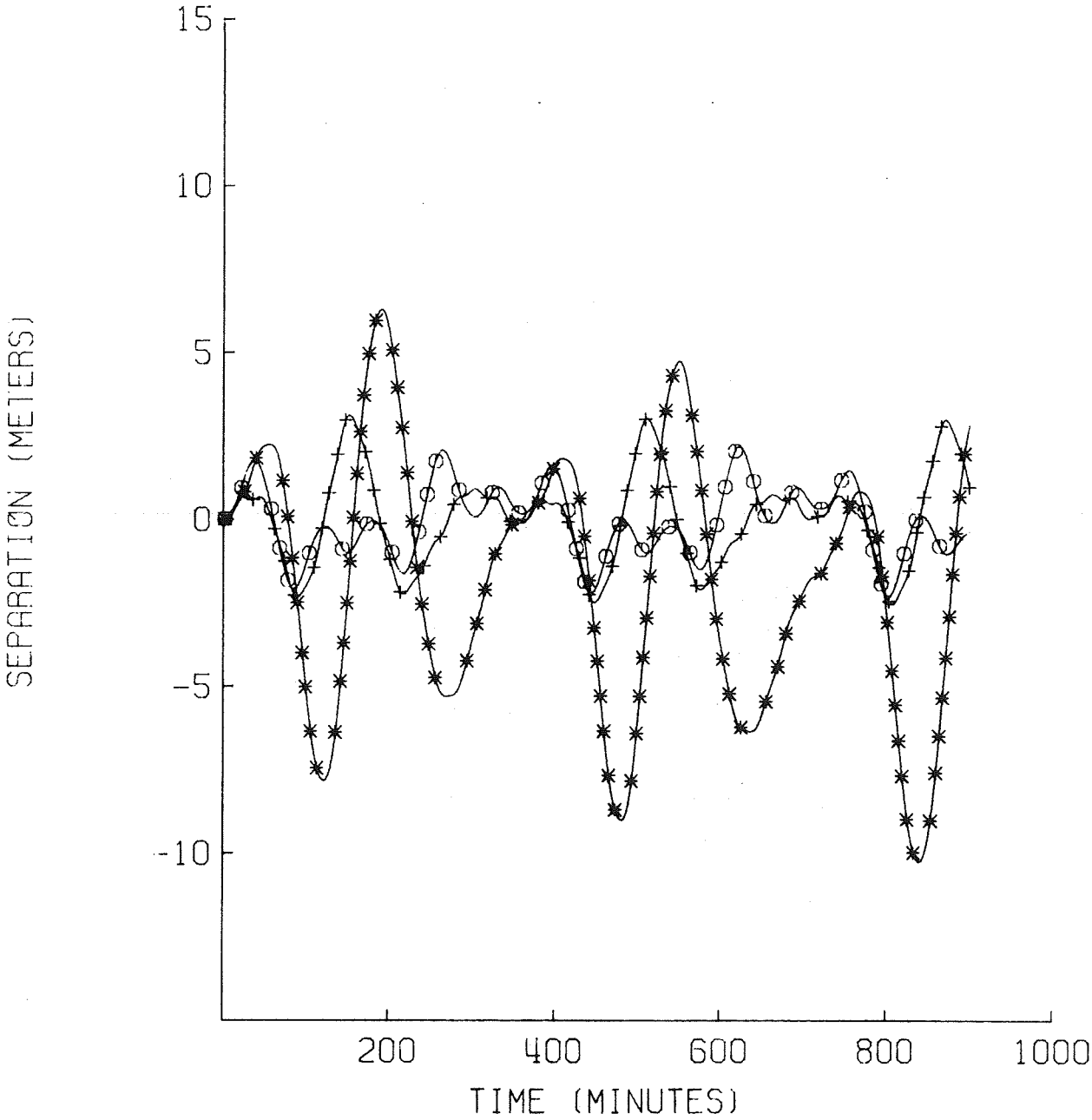


120 MINUTE PERIOD

M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	8059.0177

RUN FOR C(5 ,4) = .1371
FACTOR USED IS 1.000000

(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊙) BI-NORMAL CROSS-TRACK

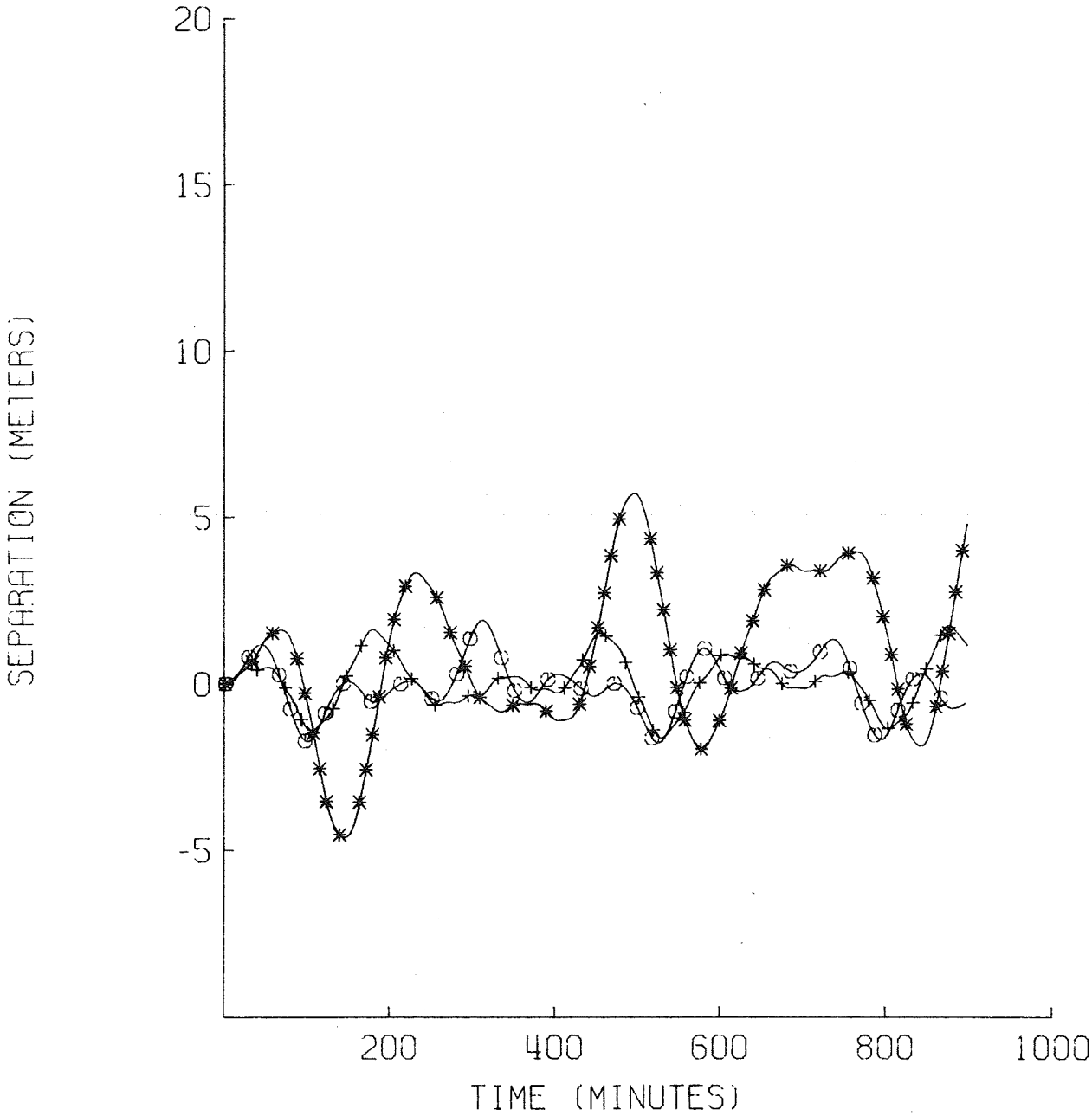


140 MINUTE PERIOD

M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	8931.2718

RUN FOR C(5 ,4) = .1371
FACTOR USED IS 1.000000

(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊕) BI-NORMAL CROSS-TRACK

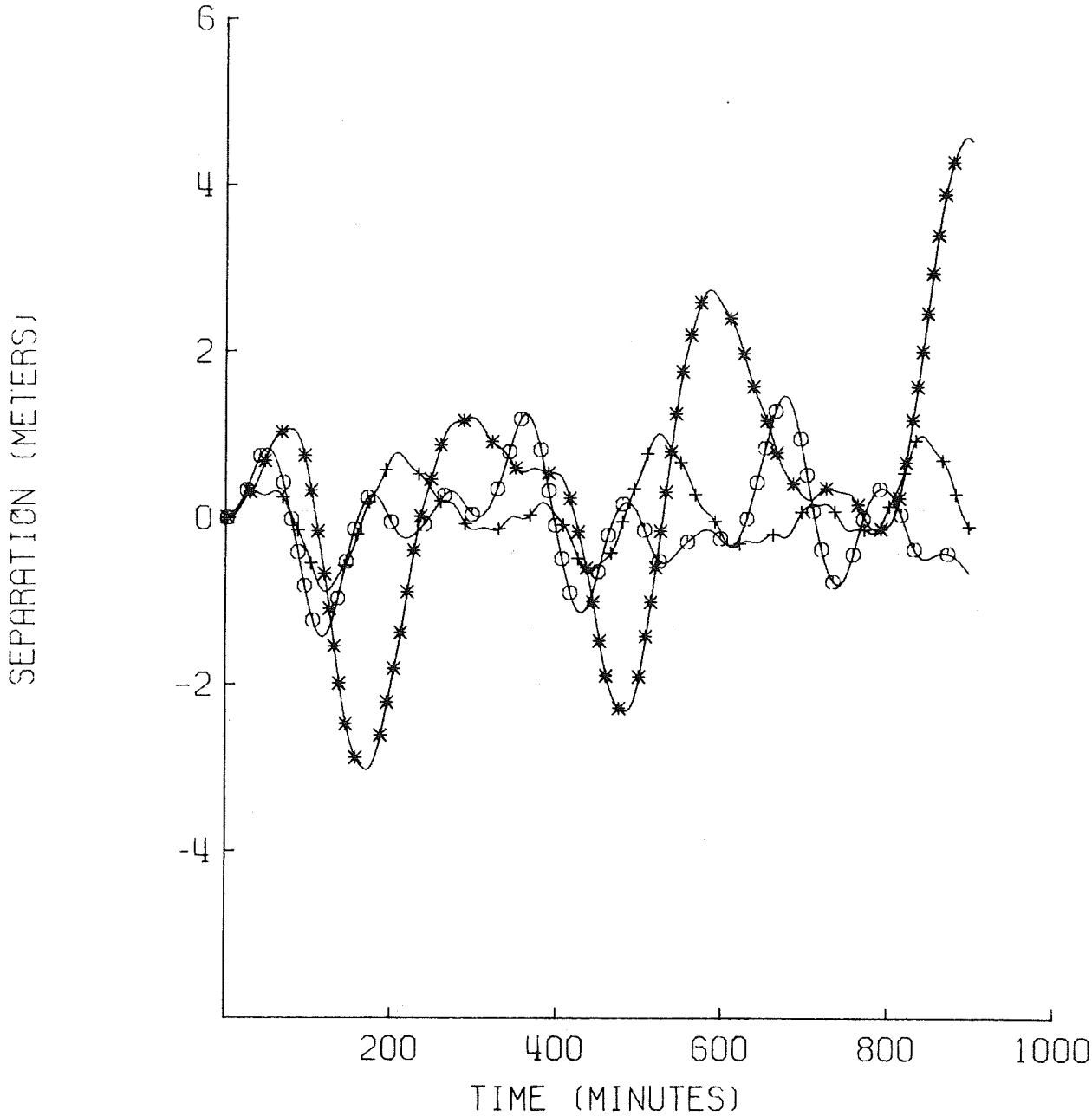


160 MINUTE PERIOD

M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	9762.8046

RUN FOR C(5 ,4) = .1371
FACTOR USED IS 1.000000

(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(O) BI-NORMAL CROSS-TRACK

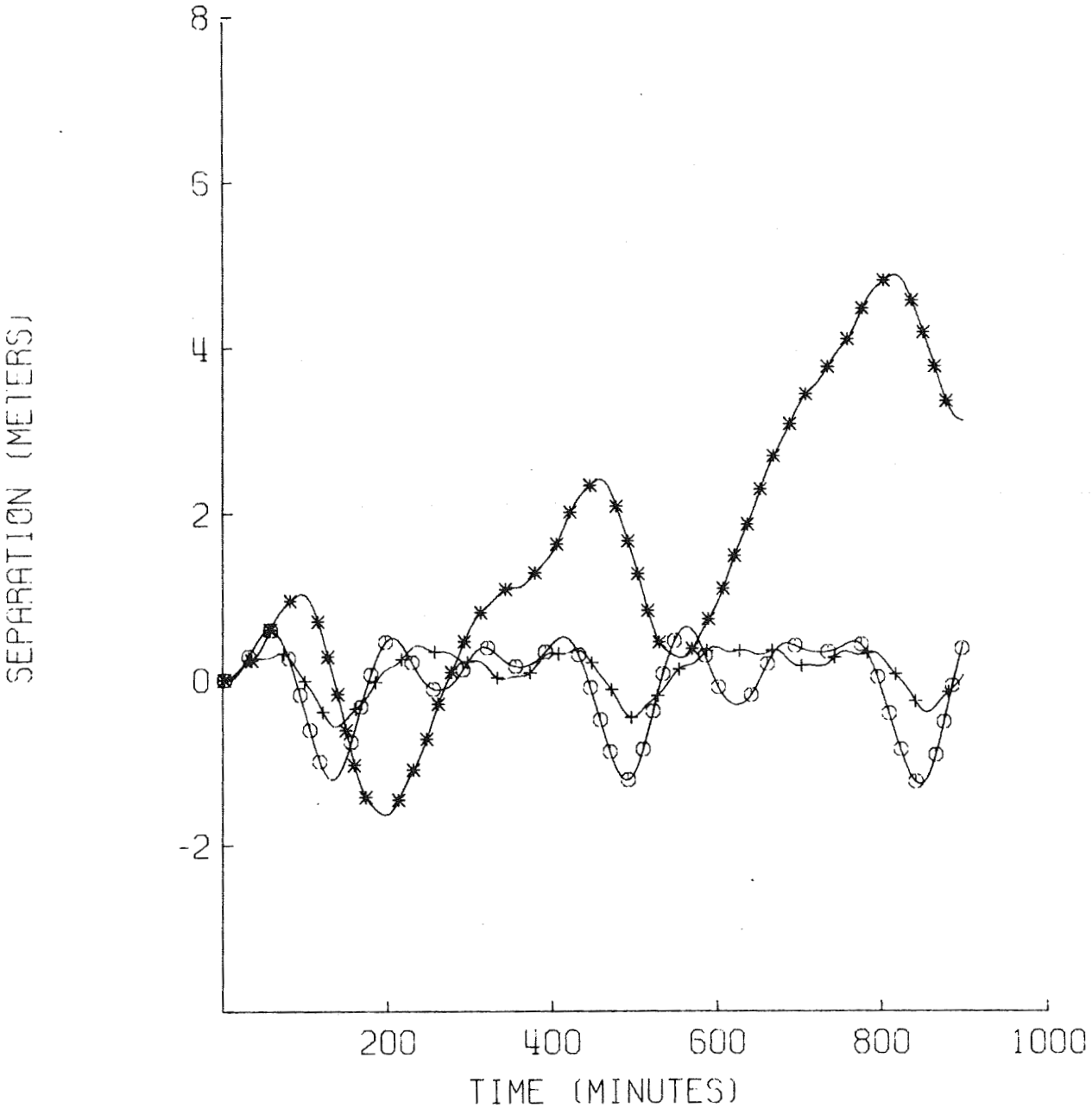


180 MINUTE PERIOD

M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	10560.3009

RUN FØR C(5 ,4) = .1371
FACTØR USED IS 1.000000

(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK

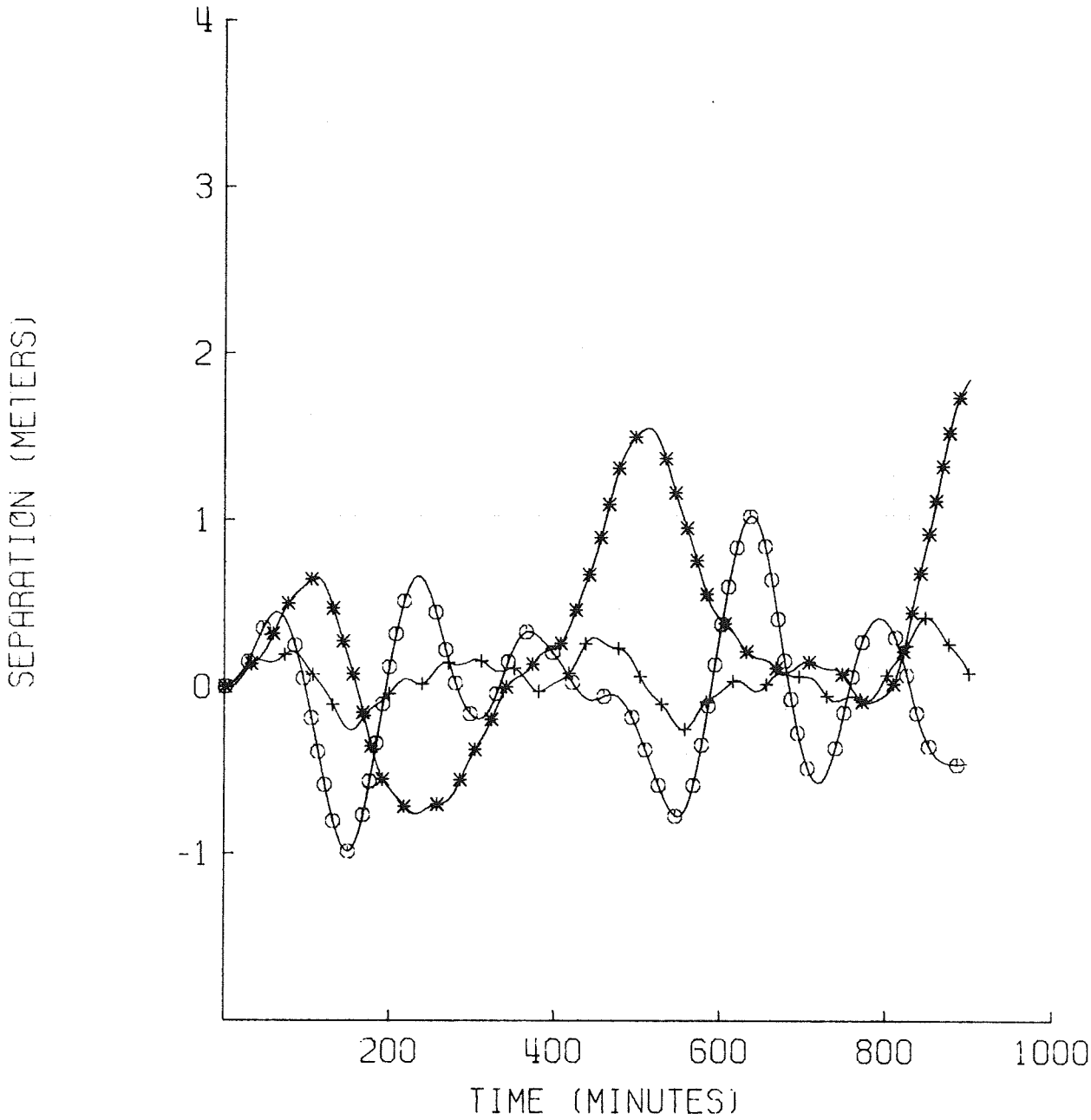


200 MINUTE PERIOD

M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	11328.7310

RUN FØR C(5 ,4) = .1371
FACTØR USED IS 1.000000

(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK

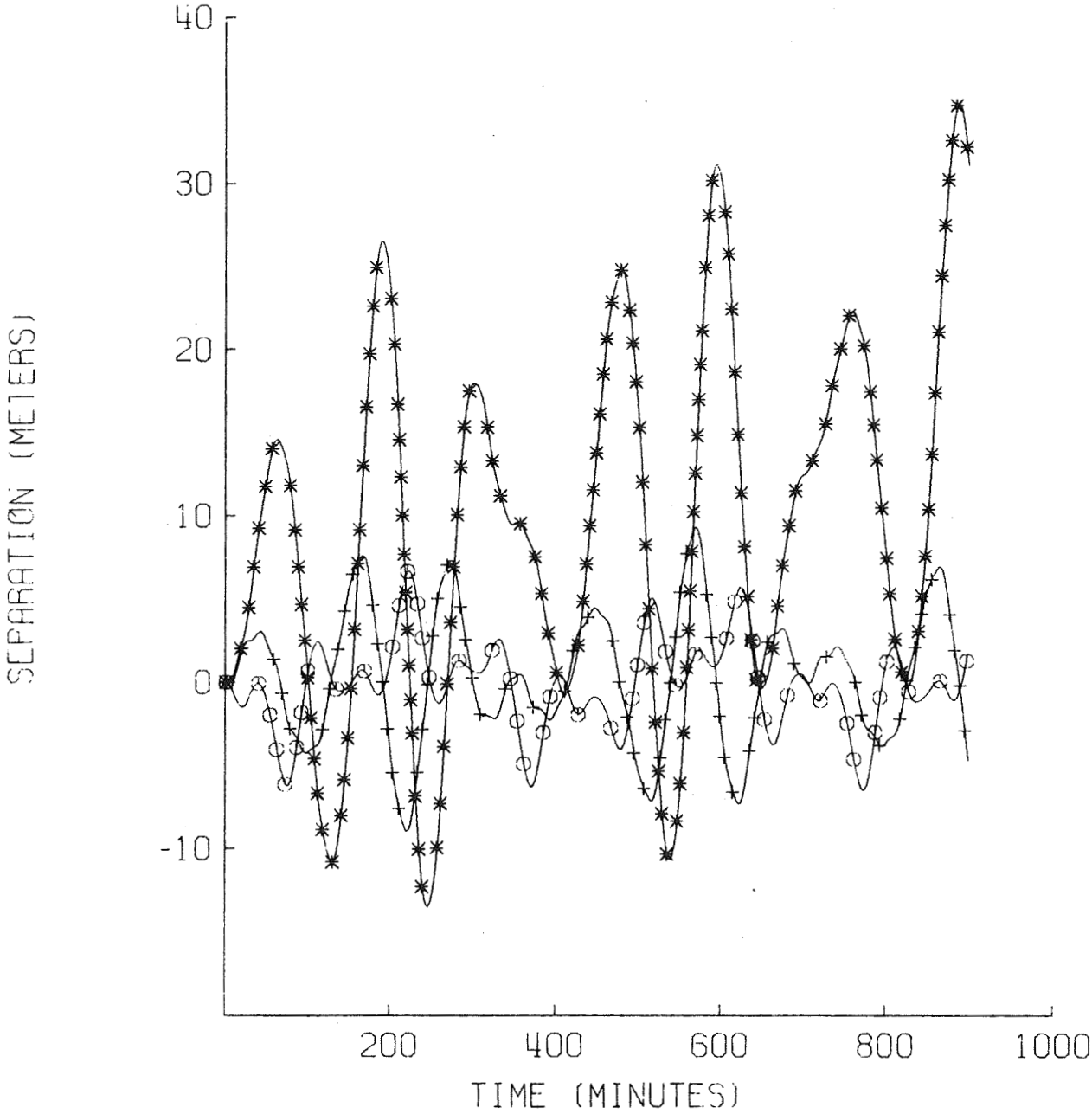


100 MINUTE PERIOD

M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FOR S(5 ,4) = .2119
FACTOR USED IS 1.000000

(*) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(O) BI-NORMAL CROSS-TRACK

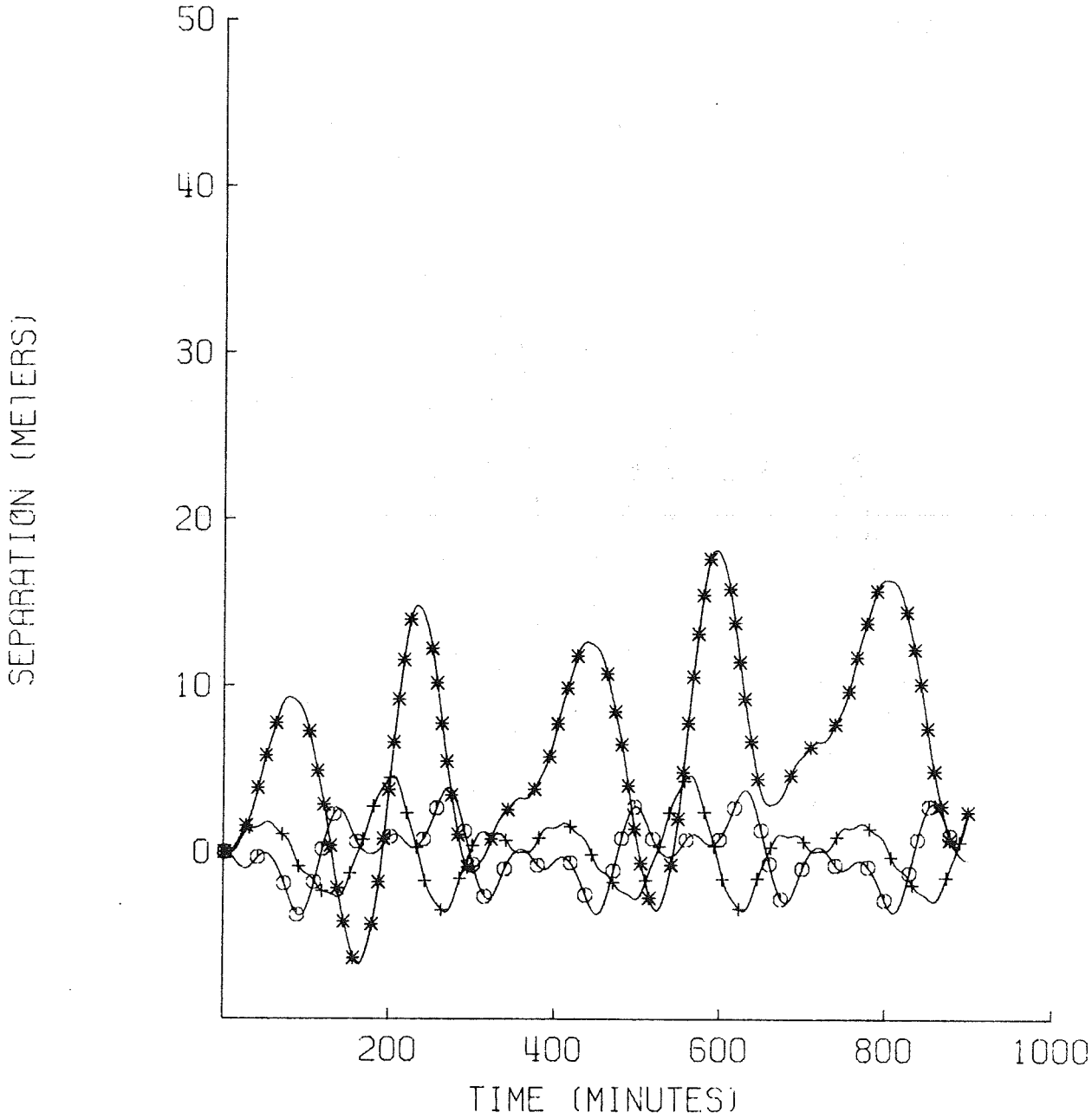


120 MINUTE PERIOD

M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	8059.0177

RUN FØR S(5 ,4) = .2119
FACTØR USED IS 1.000000

(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⦶) BI-NØRMAL CRØSS-TRACK

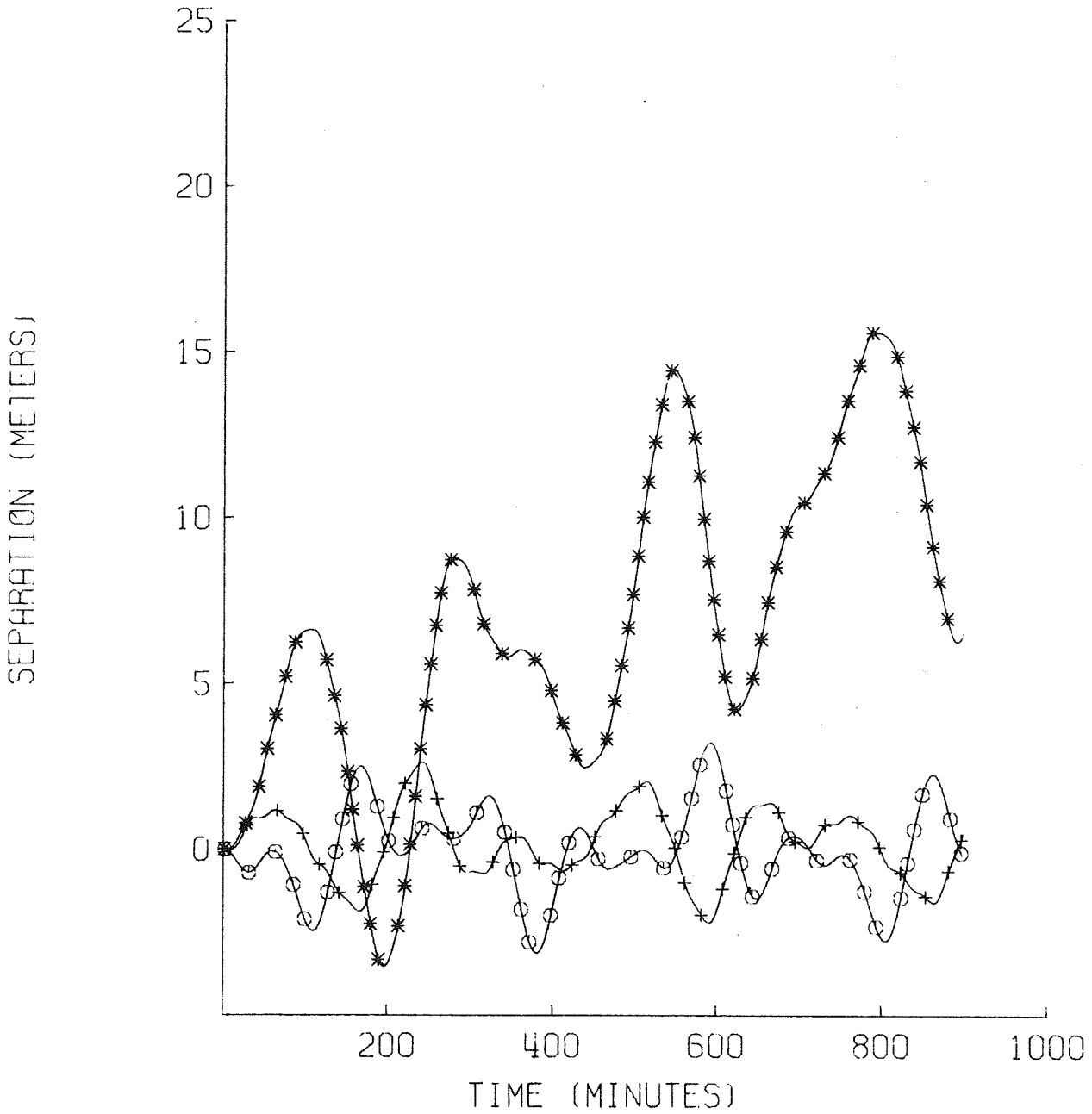


140 MINUTE PERIOD

M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	8931.2718

RUN FØR S(5 ,4) = .2119
FACTØR USED IS 1.000000

(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⦶) BI-NØRMAL CRØSS-TRACK

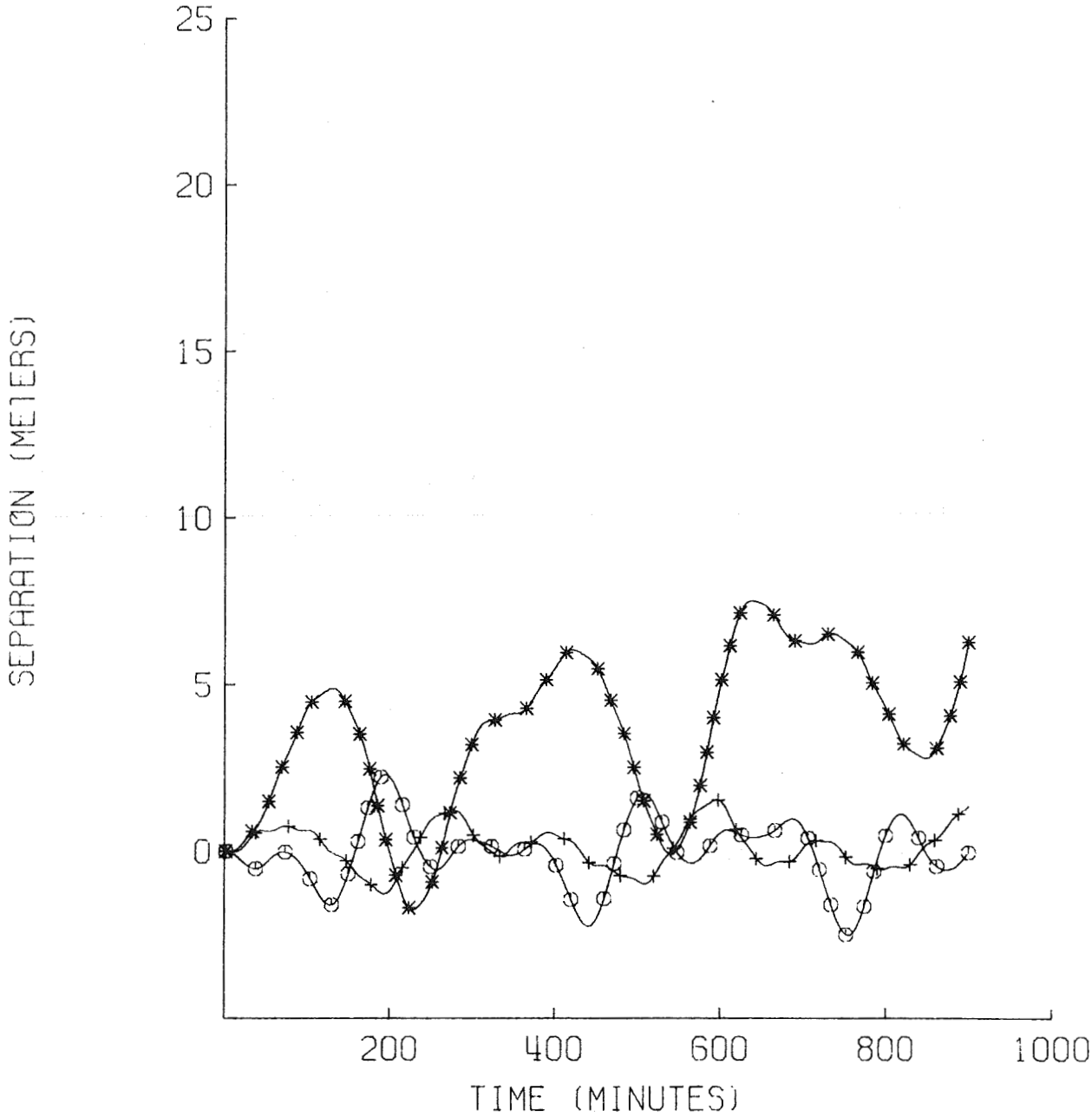


160 MINUTE PERIOD

M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	9762.8046

RUN FØR S(5 ,4) = .2119
FACTØR USED IS 1.000000

(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK

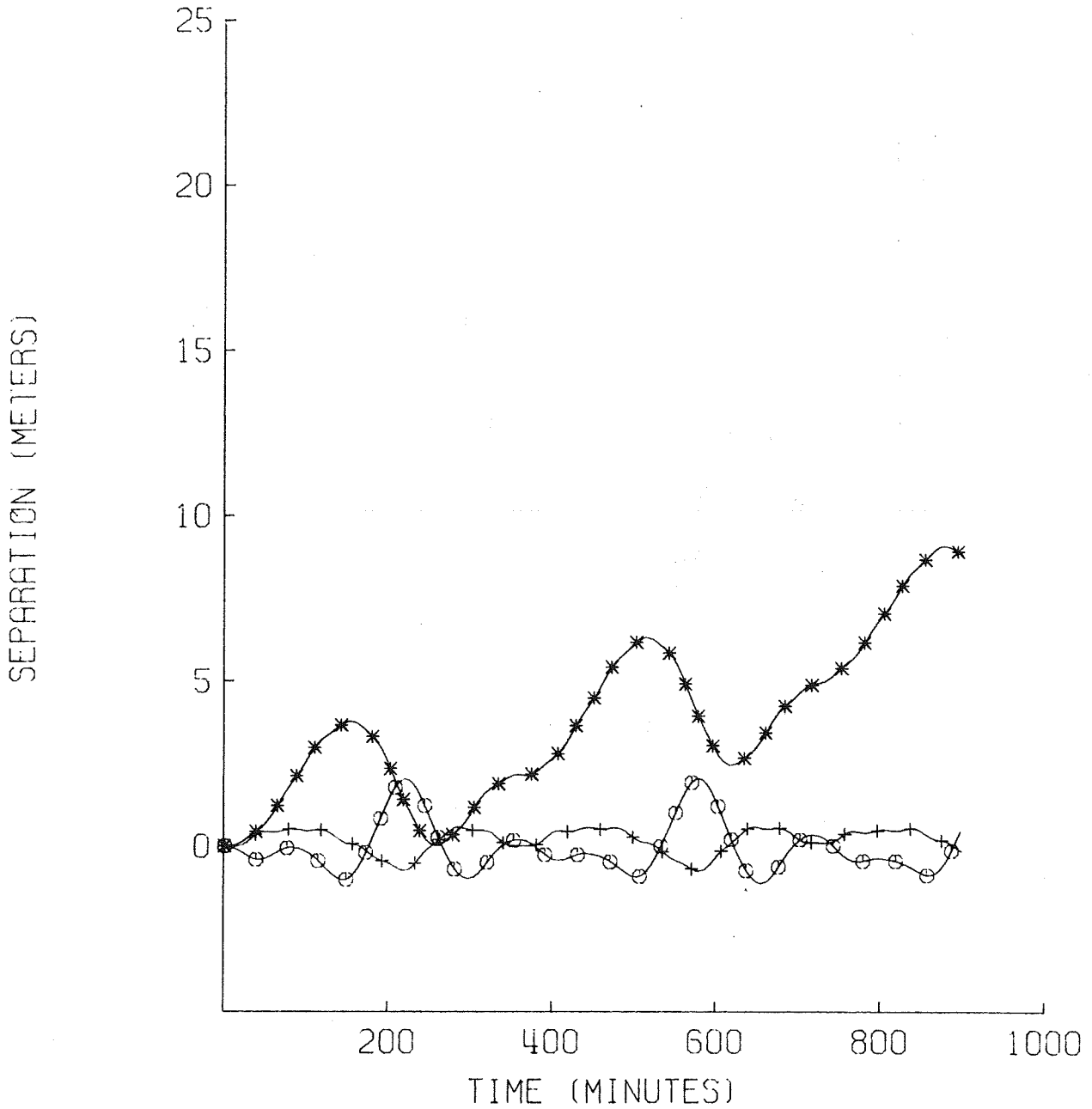


180 MINUTE PERIOD

M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	10560.3009

RUN FØR S(5 ,4) = .2119
FACTØR USED IS 1.000000

(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK

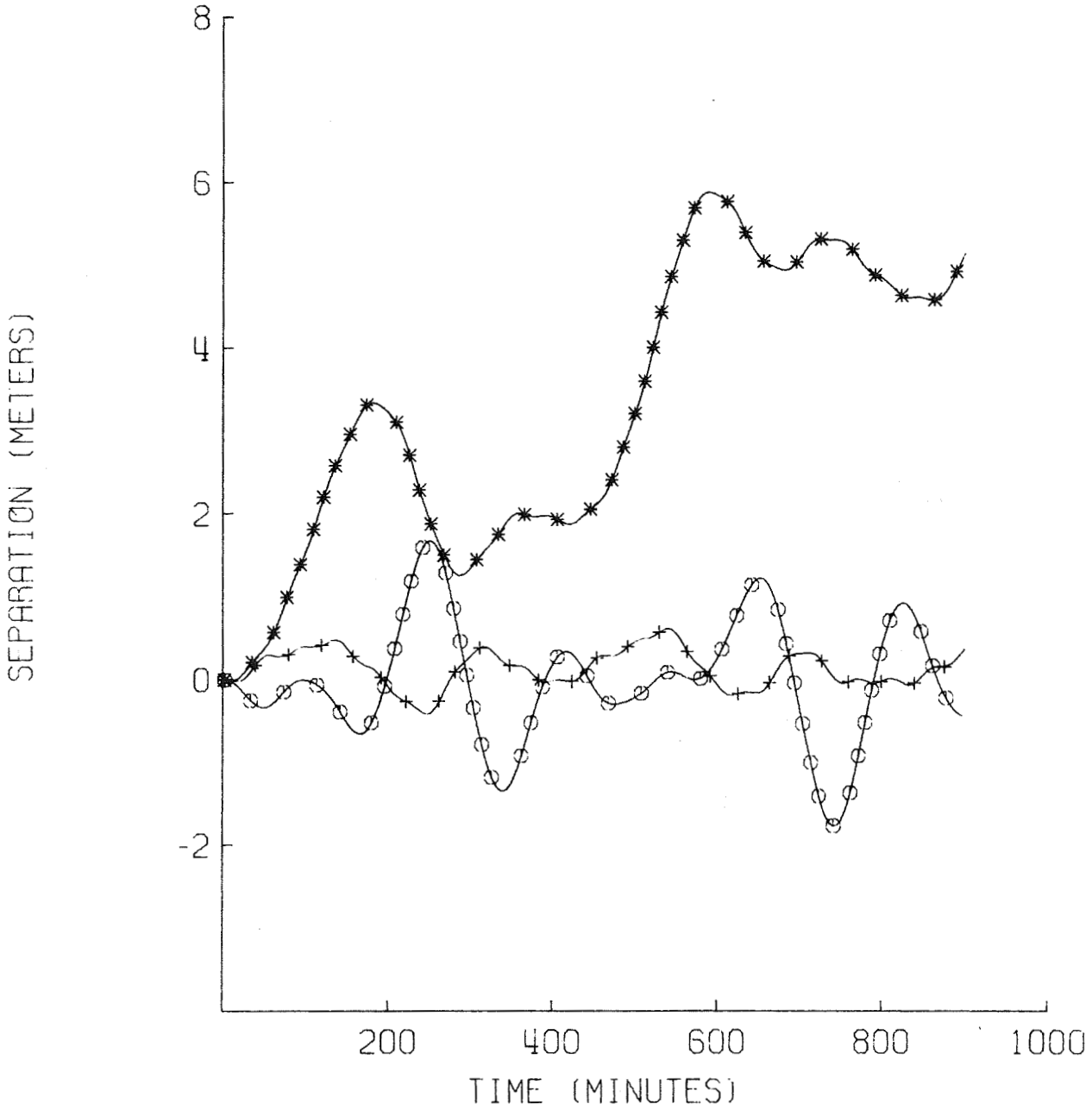


200 MINUTE PERIOD

M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	11328.7310

RUN FOR S(5 ,4) = .2119
FACTOR USED IS 1.000000

(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⦶) BI-NORMAL CROSS-TRACK

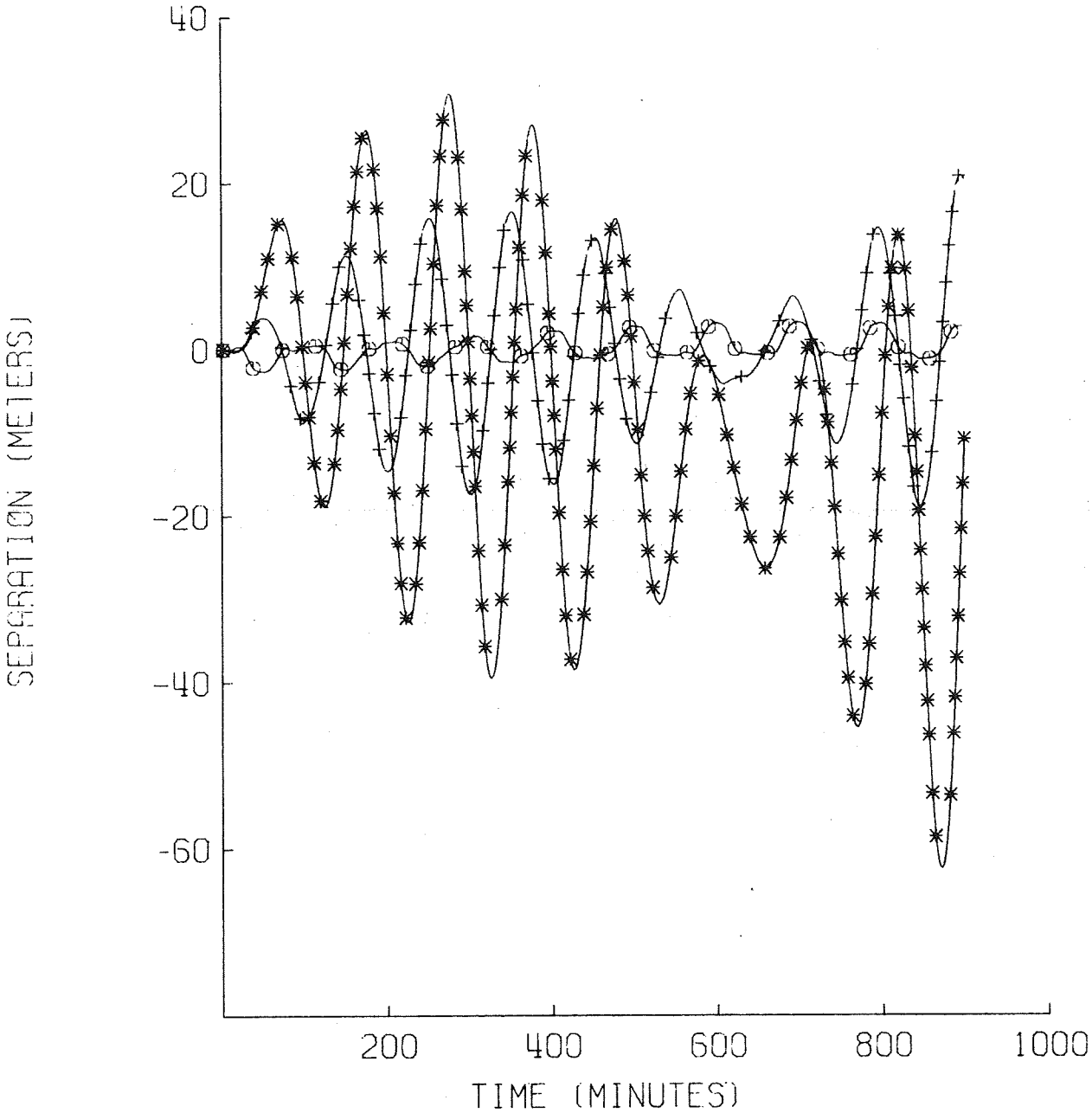


100 MINUTE PERIOD

M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR C(9 ,1) = .1598
FACTØR USED IS 1.000000

(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK

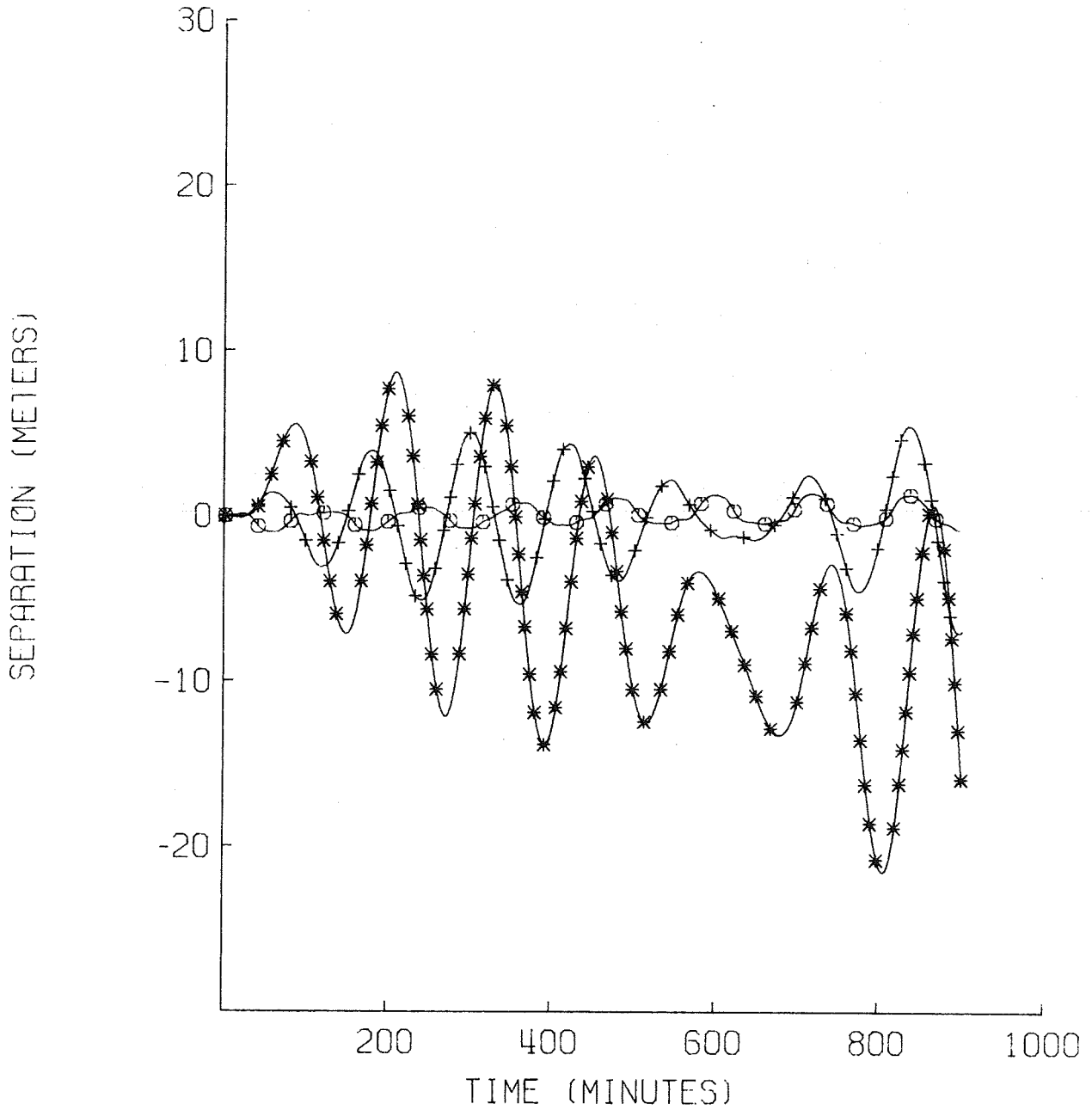


120 MINUTE PERIOD

M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	8059.0177

RUN FØR C(9 ,1) = .1598
FACTØR USED IS 1.000000

(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⦶) BI-NØRMAL CRØSS-TRACK

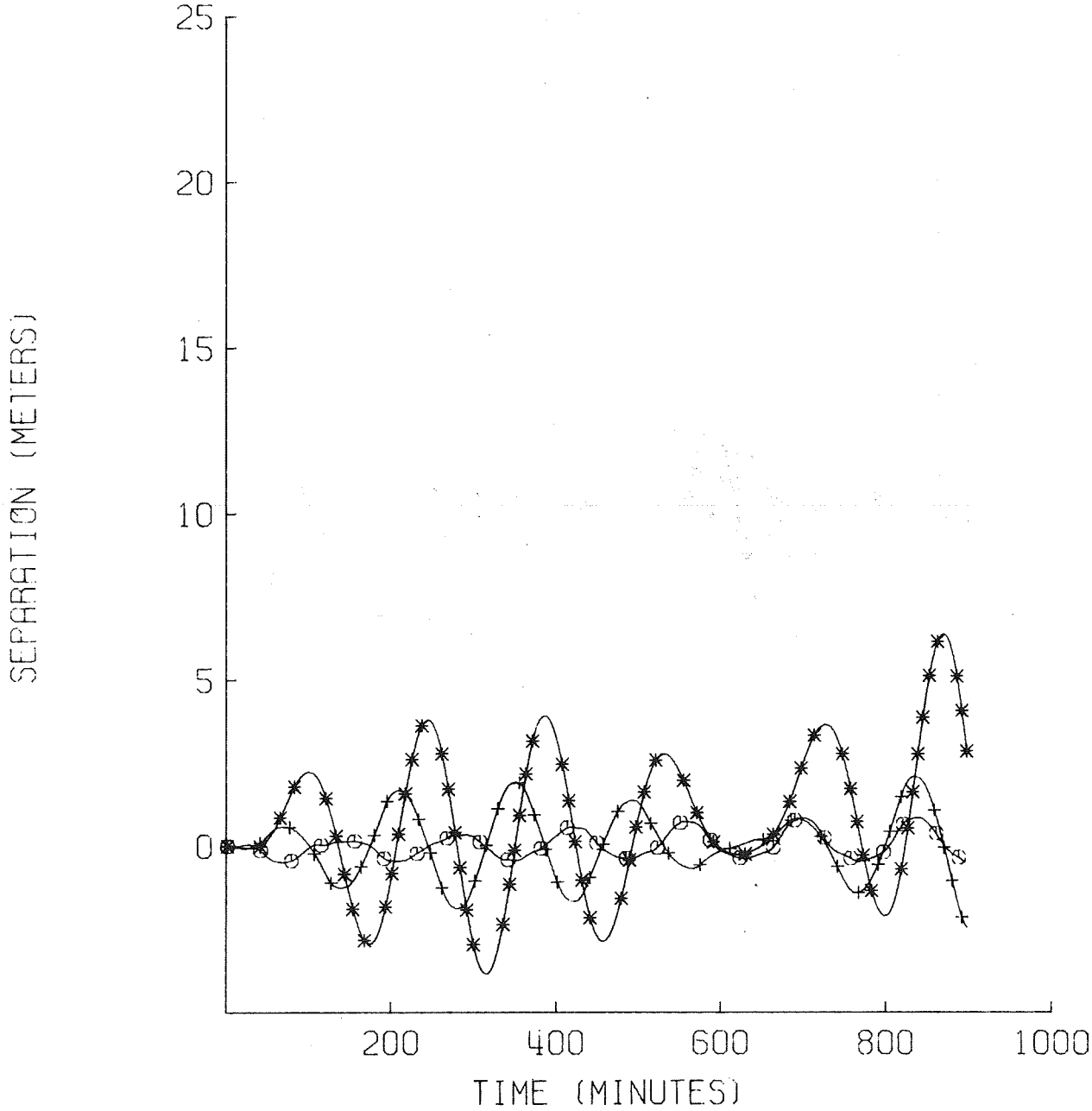


140 MINUTE PERIOD

M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	8931.2718

RUN FØR C(9 ,1) = .1598
FACTØR USED IS 1.000000

(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK

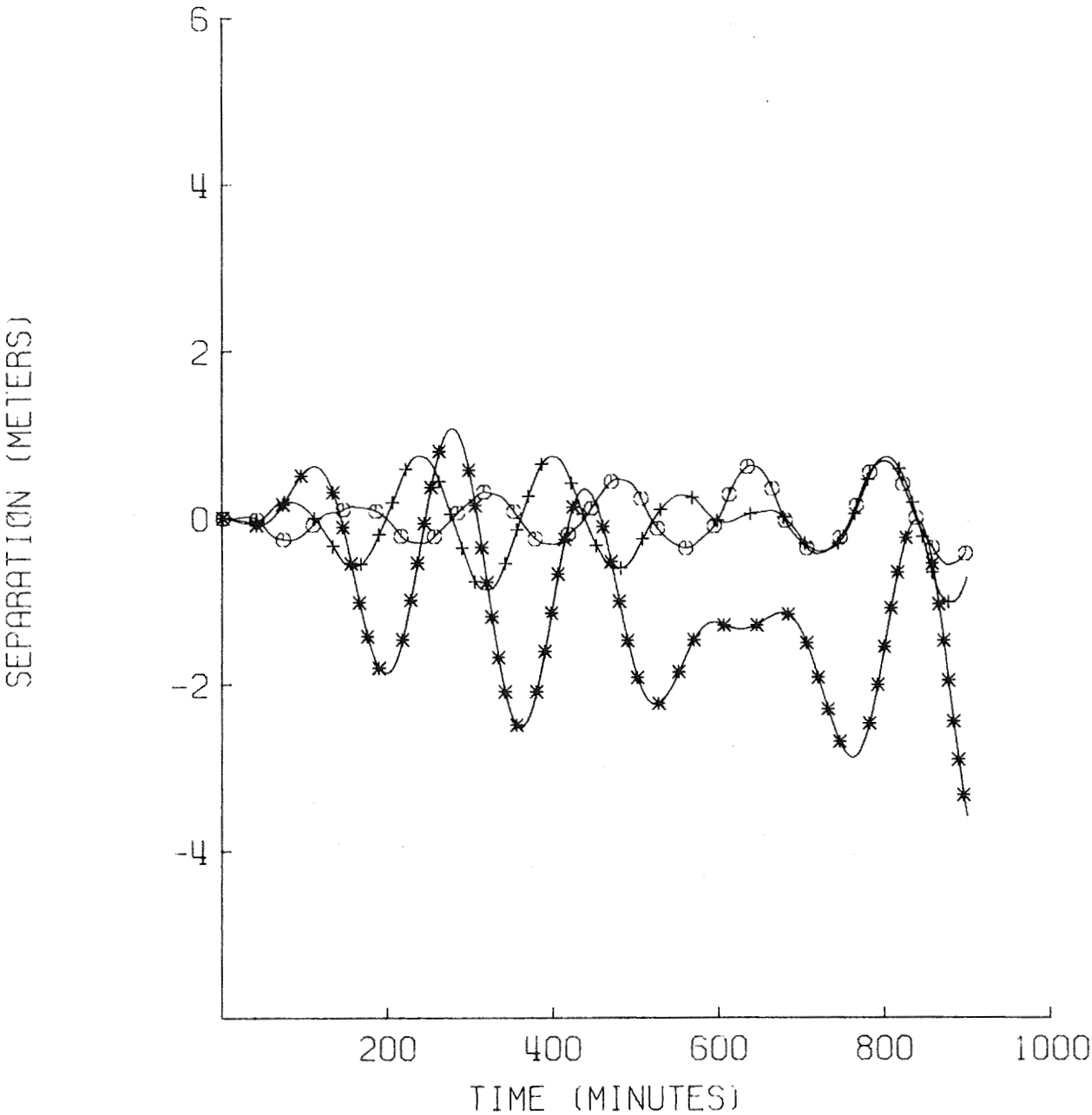


160 MINUTE PERIOD

M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	9762.8046

RUN FØR C(9 ,1) = .1598
FACTØR USED IS 1.000000

(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK

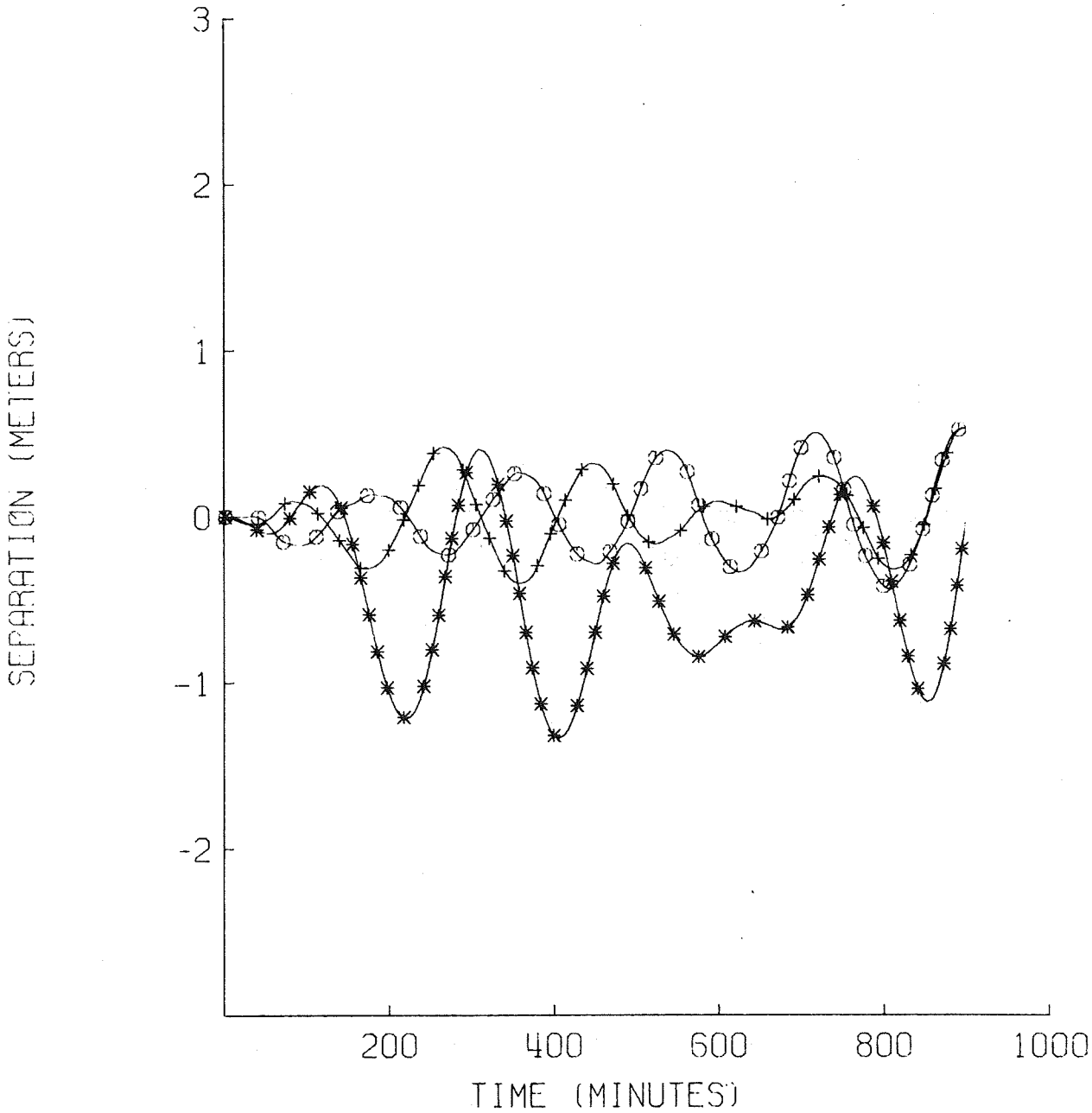


180 MINUTE PERIOD

M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	10560.3009

RUN FØR C(9 ,1) = .1598
FACTØR USED IS 1.000000

(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⦶) BI-NØRMAL CRØSS-TRACK

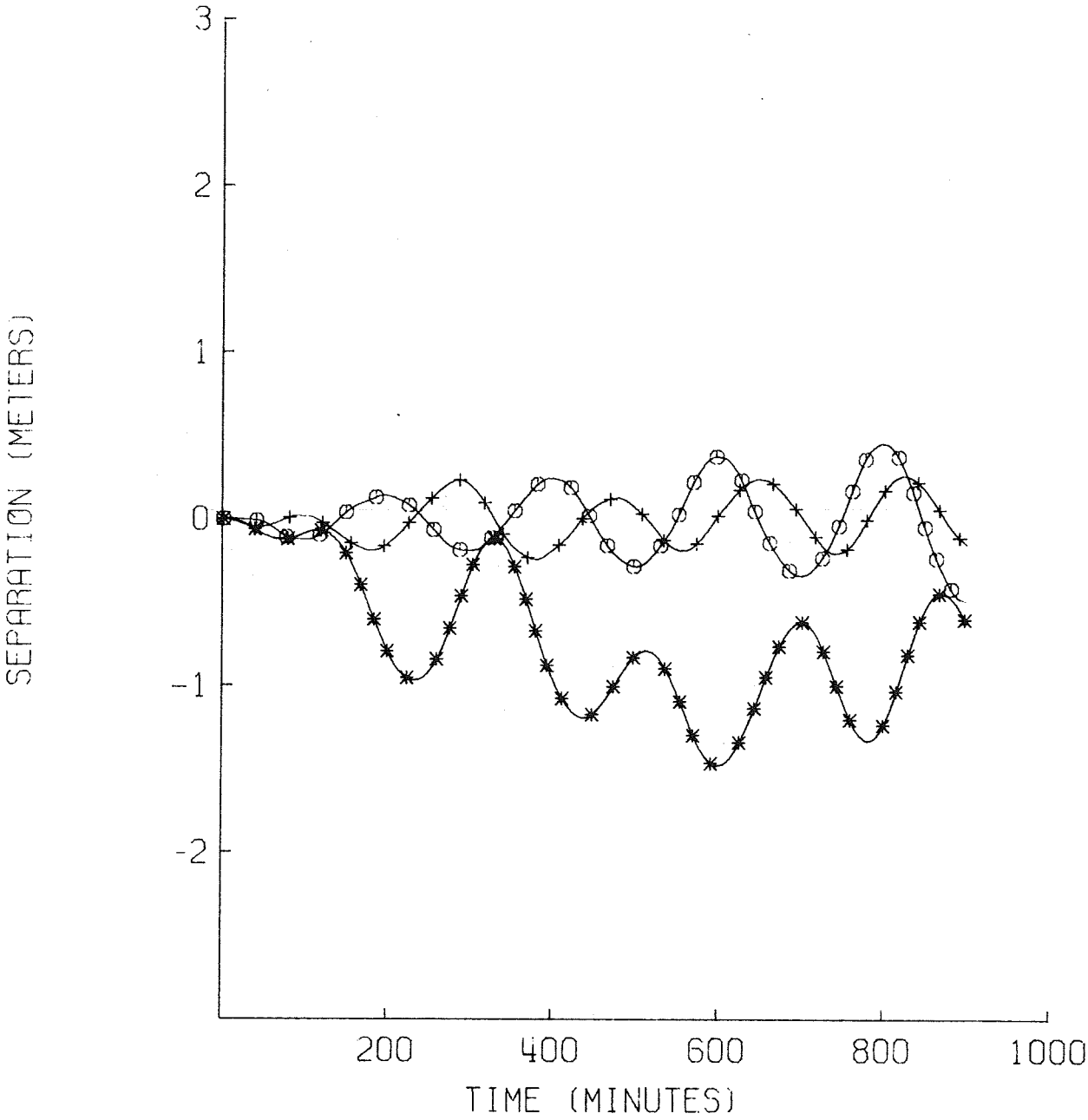


200 MINUTE PERIOD

M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	11328.7310

RUN FØR C(9 ,1) = .1598
FACTØR USED IS 1.000000

(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK

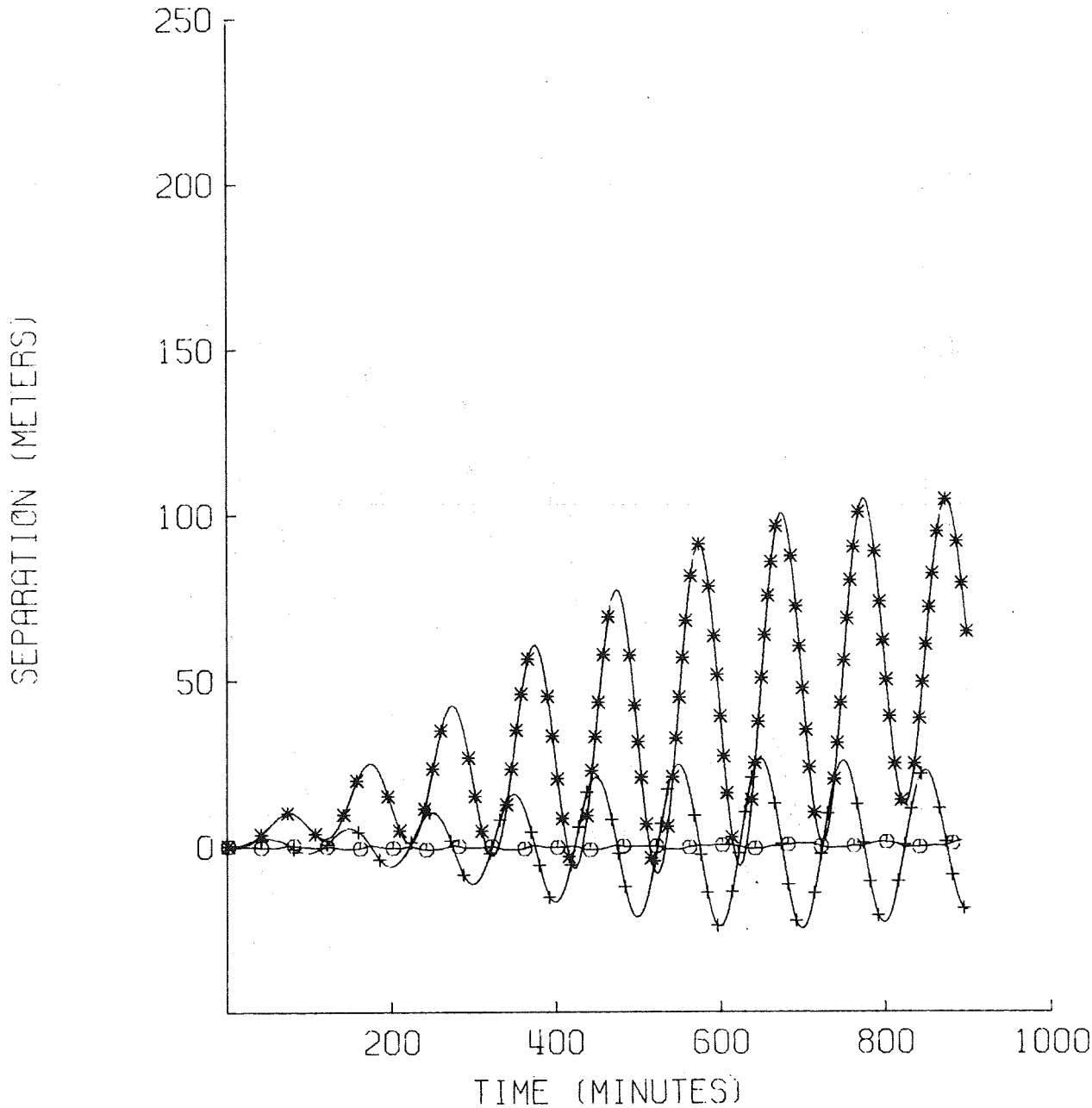


100 MINUTE PERIOD

M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	7136.6535

RUN FØR S(9 ,1) = -.0966
FACTØR USED IS 1.000000

(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK

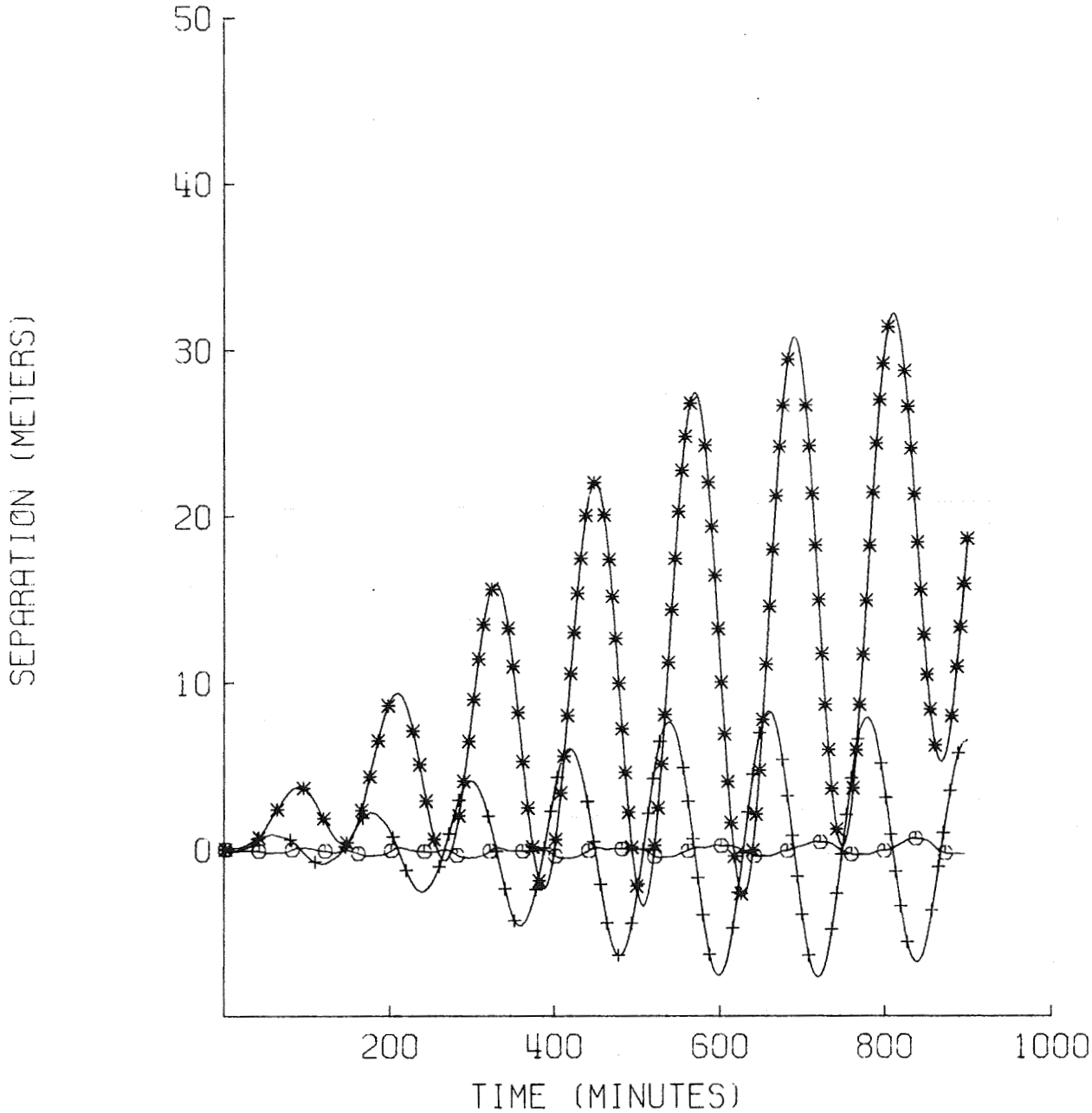


120 MINUTE PERIOD

M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	8059.0177

RUN FØR S(9 ,1) = -.0966
FACTØR USED IS 1.000000

(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊙) BI-NØRMAL CRØSS-TRACK

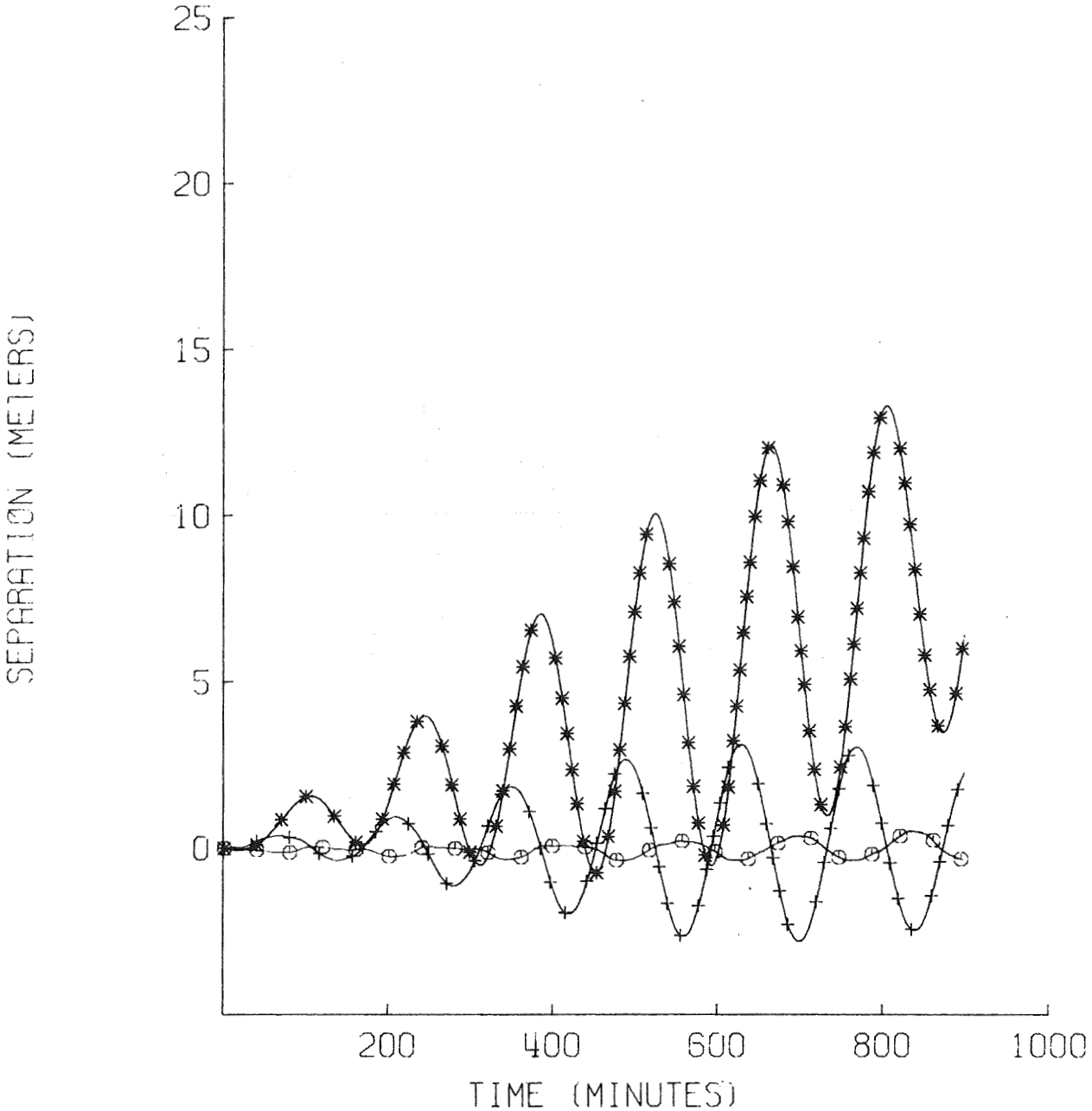


140 MINUTE PERIOD

M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	8931.2718

RUN FØR S(9 ,1) = -.0966
FACTØR USED IS 1.000000

(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK

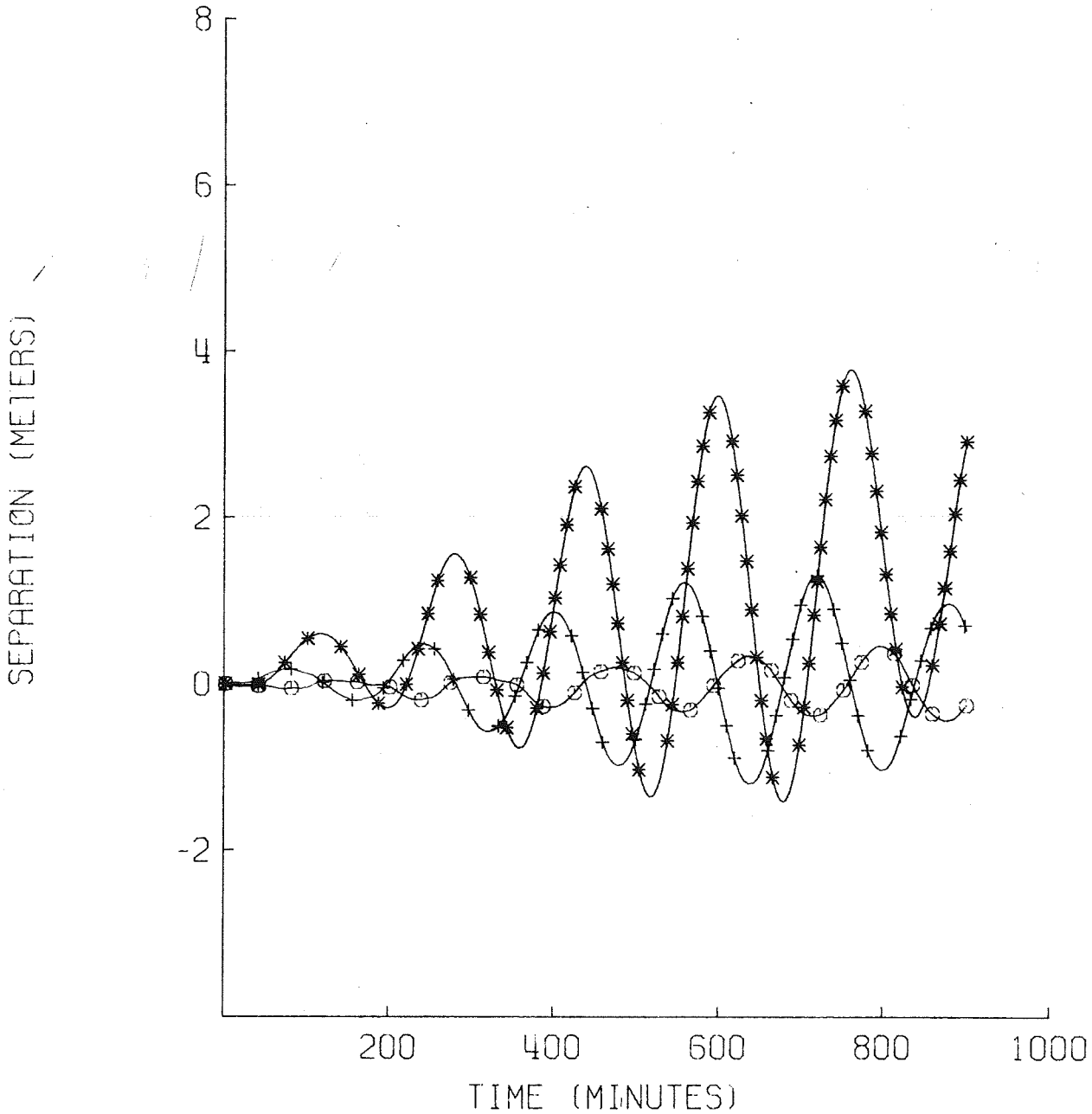


160 MINUTE PERIOD

M	ØMEGA	C ØMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	9762.8046

RUN FØR S(9 ,1) = -.0966
FACTØR USED IS 1.000000

(✳) IN-TRACK
(+) PRINCIPAL NØRMAL CRØSS-TRACK
(⊖) BI-NØRMAL CRØSS-TRACK

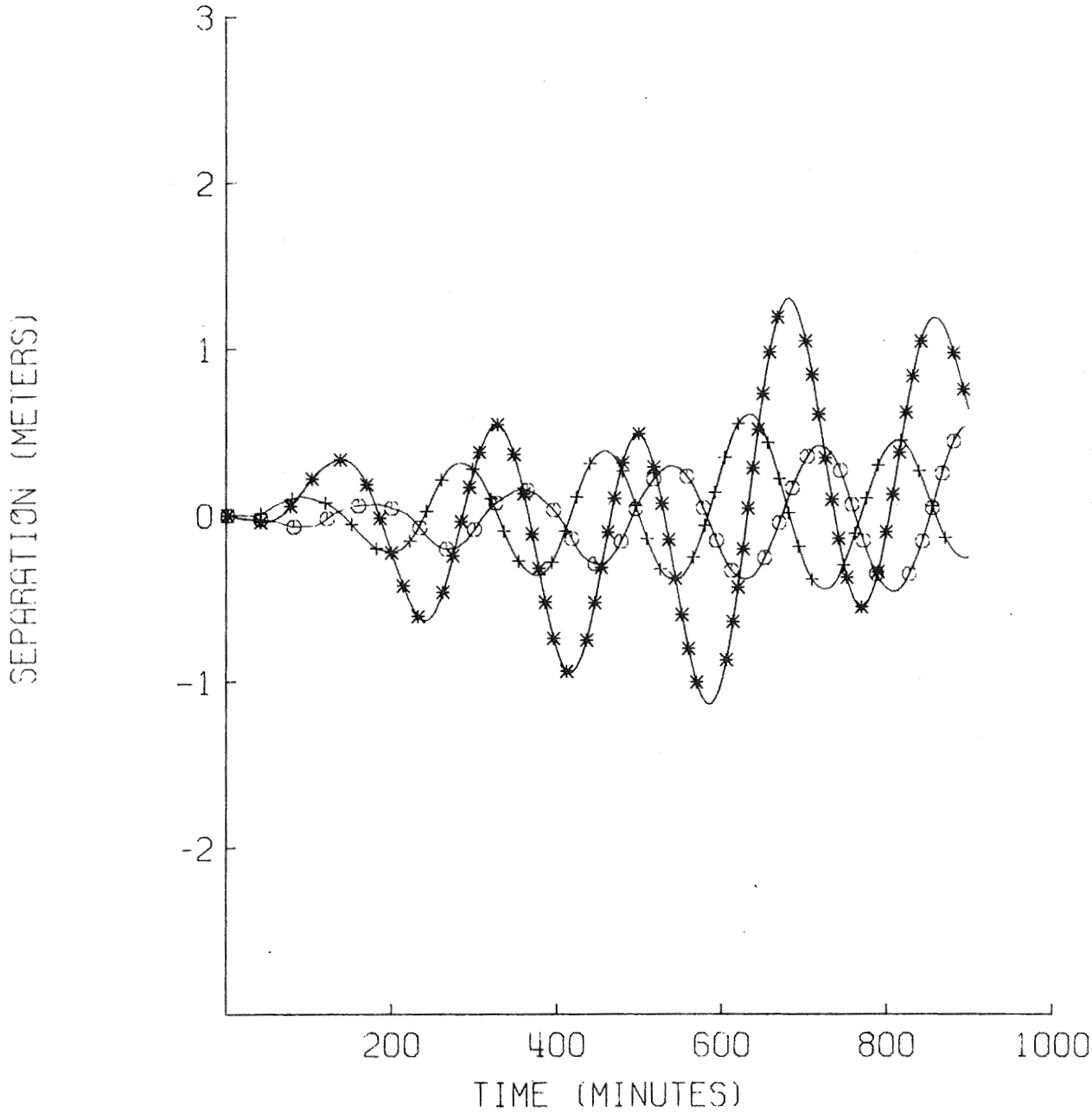


180 MINUTE PERIOD

M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	10560.3009

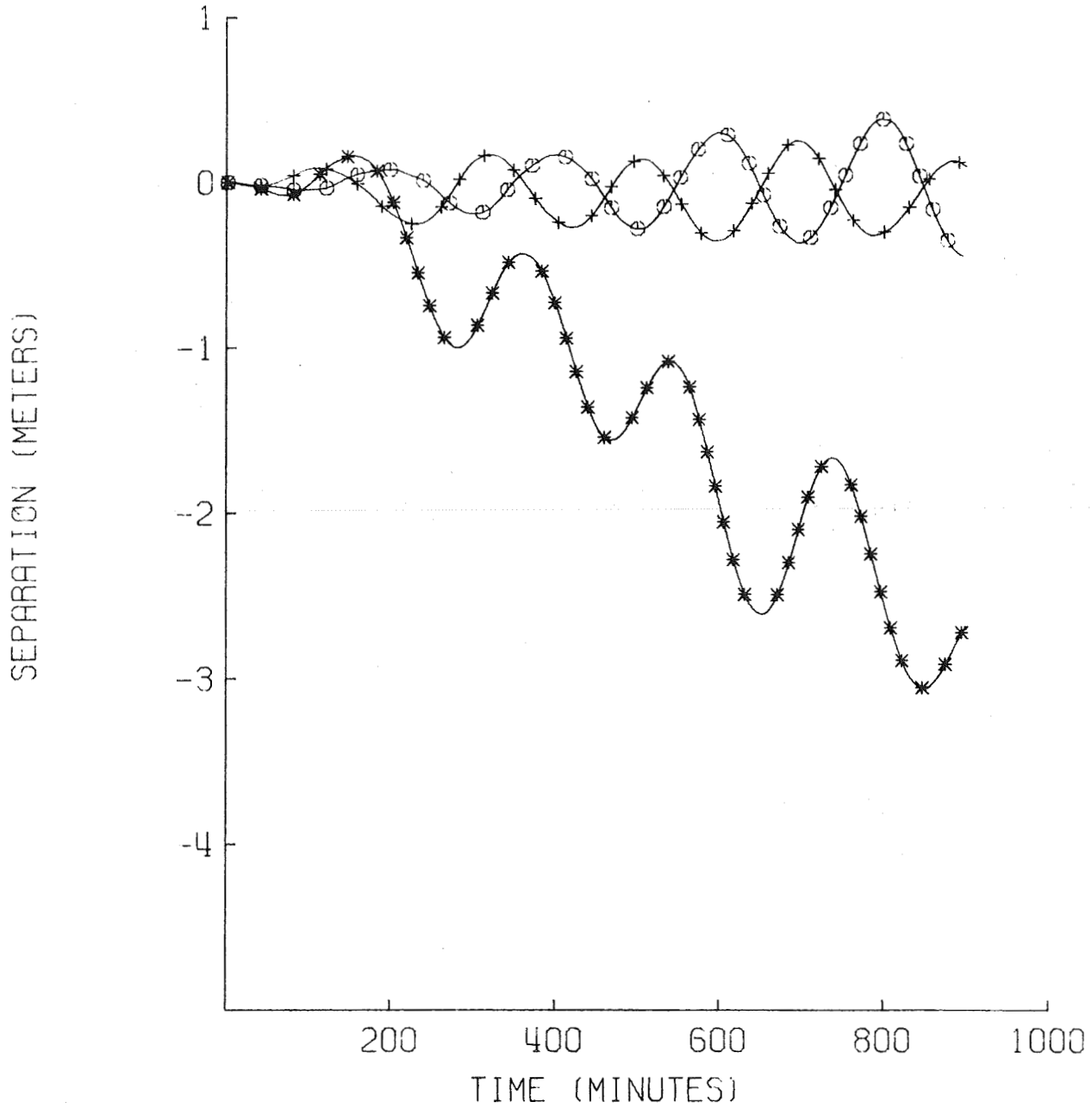
RUN FOR S(9 ,1) = -.0966
FACTOR USED IS 1.000000

(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊖) BI-NORMAL CROSS-TRACK



200 MINUTE PERIOD

M	OMEGA	C OMEGA	I	E	A
0.0000	0.0000	0.0000	45.00000	.00500000	11328.7310

RUN FOR S(9 ,1) = -.0966
FACTOR USED IS 1.000000

(✳) IN-TRACK
(+) PRINCIPAL NORMAL CROSS-TRACK
(⊘) BI-NORMAL CROSS-TRACK