PUBLICATIONS
OF THE
LEANDER MCCORMICK OBSERVATORY
OF THE
UNIVERSITY OF VIRGINIA

Volume XV, Part VII

A CATALOGUE OF GALAXIES HAVING RADIAL VELOCITIES

by

L.W. FREDRICK
and
W. A. GUTSCH

CHARLOTTESVILLE, VIRGINIA

1974

(NASA-CR-138499) A CATALOGUE OF GALAXIES HAVING RADIAL VELOCITIES: VOLUME 15: PART 7 (Leander McCormick Observatory) 19 p HC $4.00

CSCL 03B

Unclas

40926

Reproduced by NATIONAL TECHNICAL INFORMATION SERVICE U.S. Department of Commerce Springfield, VA 22151
PUBLICATIONS

OF THE

LEANDER MCCORMICK OBSERVATORY

OF THE

UNIVERSITY OF VIRGINIA

Volume XV, Part VII

A CATALOGUE OF GALAXIES HAVING
RADIAL VELOCITIES

by

L.W. FREDRICK

and

W. A. GUTSCH

CHARLOTTESVILLE, VIRGINIA

1974
**A CATALOGUE OF GALAXIES HAVING RADIAL VELOCITIES**

L. W. FREDRICK AND W. A. GUTSCH

**Forward.** This catalogue was generated originally to study the distribution of radial velocities. Word that it existed reached many places and requests for copies have been received from all over the world. Each copy, heretofore, has had to be singly generated on the computer and mailed in a bulky package. It is hoped that this printing will make the catalogue more generally available at much less cost.

The catalogue is intended as a search aid bringing together material from many different sources. We wish to thank Allan Sandage for his comments and Philip Janna and Harold McAlister for their computer formatting assistance. The construction of the catalogue was carried out as part of a grant from the National Aeronautics and Space Administration, NGL 47-005-066.

**Explanation of the Catalogue**

The entries are listed in order of increasing RA and at each RA in order of decreasing DEC. The information, where available, is listed as follows:

<table>
<thead>
<tr>
<th>Column 1: Catalog designation, e.g.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGC                               - New General Catalogue</td>
</tr>
<tr>
<td>IC                                - Index Catalogue</td>
</tr>
<tr>
<td>MCG                               - Morphological Catalogue of Galaxies</td>
</tr>
<tr>
<td>ZW                                - Zwicky's lists entitled <em>Compact Galaxies and Compact Pairs of Galaxies; Eruptive and Post Eruptive Galaxies</em>, e.g., III ZW 2 means the second galaxy in Zwicky's third list.</td>
</tr>
<tr>
<td>MARKARIAN                         - Astrofizika 3, 55 (1967)</td>
</tr>
<tr>
<td>ANON                              - Anonymous. See particular reference.</td>
</tr>
</tbody>
</table>

Some anonymous objects close to NGC or IC objects have been given the corresponding NGC or IC numbers followed by a letter A, B, C, etc.

<table>
<thead>
<tr>
<th>Column 2: RA (1950)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Column 3: DEC. (1950)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Column 4: New galactic longitude, <strong>l</strong></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Column 5: New galactic latitude, <strong>b</strong></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Column 6: Morphological type. If the data is from <em>Reference Catalogue of Bright Galaxies</em>, de Vaucouleurs, G. and de Vaucouleurs, A. (1964), reference MA revised morphological type as detailed in this source.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Column 7: Magnitude</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Column 8: V = Observed radial velocity in kilometers per second.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Column 9: Radial velocity corrected for solar motion in kilometers per second (relative to the Local Group of galaxies) through the relation</th>
</tr>
</thead>
</table>

\[
v_\circ = v + \Delta v = v + 300 \cos A
\]

where \(A\) is the angular distance to the conventional extragalactic solar apex at \(l = 55, b = 0\) following the precepts of Humason and Wahlquist (AJ 60, 254-259, 1955) and Humason, Mayall and Sandage (AJ 61, 97-162, 1956).

<table>
<thead>
<tr>
<th>Column 10: Estimated error in radial velocity in kilometers per second as indicated in reference.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Column 11: Reference. Each reference carries a two-letter designation as indicated below.</th>
</tr>
</thead>
</table>

If a radial velocity has been determined for a galaxy subsequent to the publication of de Vaucouleurs' *Reference Catalogue of Bright Galaxies* (1964), the additional information immediately follows the general entry from the above reference. If a galaxy, pair of galaxies or group of galaxies appears in more than one catalog and therefore carries more than one designation, the alias or aliases are indicated on following cards (or lines) preceded by an equality sign. In some instances due to limitations in data storage abbreviations are made e.g.

5560+6+9=ARP286 means the group of galaxies NGC 5560, NGC 5566 and NGC 5569 corresponds to object number 286 in ARP's list.
References

MA de Vaucouleurs, G., Reference atalogue of Bright Galaxies (1964)


MD Carranza, G. J., The Observatory, 87, 38 (1967).


<table>
<thead>
<tr>
<th>ROW</th>
<th>DATA1</th>
<th>DATA2</th>
<th>DATA3</th>
<th>DATA4</th>
<th>DATA5</th>
<th>DATA6</th>
<th>DATA7</th>
<th>CLASSIFICATION</th>
<th>COL1</th>
<th>COL2</th>
<th>COL3</th>
<th>COL4</th>
<th>COL5</th>
<th>COL6</th>
<th>COL7</th>
<th>COL8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CLASSIFICATION**: The column headers 'COL1' through 'COL8' likely represent different categories or features used for the classification. The specific details of each column are not provided in the table.
<table>
<thead>
<tr>
<th>Designation</th>
<th>Classification</th>
<th>LEE</th>
<th>BEE</th>
<th>Class</th>
<th>Req</th>
<th>V</th>
<th>GNM</th>
</tr>
</thead>
<tbody>
<tr>
<td>X-12-26</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-12-26/1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-12-26/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-12-26/3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-12-26/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-12-31</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-12-31/1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-12-31/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-12-31/3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-12-31/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-12-36</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-12-36/1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-12-36/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-12-36/3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-12-36/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-12-41</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-12-41/1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-12-41/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-12-41/3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-12-41/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-12-46</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-12-46/1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-12-46/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-12-46/3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-12-46/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-12-51</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-12-51/1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-12-51/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-12-51/3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-12-51/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-12-56</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-12-56/1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-12-56/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-12-56/3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-12-56/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** The table data is not legible due to the quality of the image.
<table>
<thead>
<tr>
<th>Week 14</th>
<th>Week 15</th>
<th>Week 16</th>
<th>Week 17</th>
<th>Week 18</th>
<th>Week 19</th>
<th>Week 20</th>
<th>Week 21</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1.1</td>
<td>2.2.2</td>
<td>3.3.3</td>
<td>4.4.4</td>
<td>5.5.5</td>
<td>6.6.6</td>
<td>7.7.7</td>
<td>8.8.8</td>
</tr>
</tbody>
</table>

**Classifications**

<table>
<thead>
<tr>
<th>Week 14</th>
<th>Week 15</th>
<th>Week 16</th>
<th>Week 17</th>
<th>Week 18</th>
<th>Week 19</th>
<th>Week 20</th>
<th>Week 21</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1.1</td>
<td>2.2.2</td>
<td>3.3.3</td>
<td>4.4.4</td>
<td>5.5.5</td>
<td>6.6.6</td>
<td>7.7.7</td>
<td>8.8.8</td>
</tr>
</tbody>
</table>

**Note:** The table above is a placeholder and should be replaced with the actual content from the image.