DENSITY MATCHING FOR BETTER GROUND CONTROL EXPERIMENTS

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Increasing the culture media density to more closely match the density of cells on microcarriers can reduce the differences in shear level and mass transport coefficients between flight and ground control experiments. This could allow a more direct determination of the effects of microgravity on cell cultures. However, care must be taken to use operating conditions that will properly support the culture.
Results from numerical simulations and some possible density matching procedures will be discussed.