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MICHIGAN STATE
U N I V E R S I T Y

PHY422/820: Classical Mechanics

FS 2020
Exam Preparation

December 1, 2020

Problem P12 – Moment of Inertia of a Space Station

A design for a space station places four spherical modules of mass m and radius R on the intersection points of a square with side length a with a thin ring of mass M (see figure). Construct the station's moment of inertia tensor with respect to the center of mass.