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"Center of mass or center of gravity"

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Abstract:
Each coordinate system has one, two or three axes and one center of its own. Each axis is called reference line and the point where they meet is its origin. The origin or the center is not the same in different systems. In some of coordinate systems origin is the center of gravity and in other systems is the center of mass. In a uniform field, the center of gravity is the same as the center of mass. In this paper we investigated about these centers and we explained when we have to use the center of mass or gravity. For example in this article we'll assess the centers of earth' gyroscopic motion, tide effects, WGS84 coordinate system and etc.
Kew words: center of mass, center of gravity, earth's gyroscopic motion, tide effects,