ORTI DETERMINATION OF SOLAR SYSTEM OBJECTS

Ementa:
- Summary of celestial mechanics: Two-body problem, 3-body problem, N-body problem, perturbations of motion, osculating elements.
- Astrometry and measurements: Astrometrical observations, Radar measurements. Reference frame, light-time correction, aberration correction.
- Orbit determination: Preliminary orbit (Gauss method, Laplace method, Vaisala method, Statistical ranging), Fitting process (least-squares method).
- Orbit uncertainty Propagation of the covariance matrix, Monte Carlo process. Applications (Near-Earth objects, lost asteroids, ...)

Bibliografia:
Articles:
✦ Fox K., Numerical integration of the equations of motion of celestial mechanics, Celestial Mechanics, 33, 127, 1984

Books: