

**“INNOVATION IN SQUABBLE OF PRISSIEST FOR NEAR-EARTH SATELLITE
ORBITS DISORGANIZE BY EARTH’S IMPETUOSITY AND REGION DRAG INTERS
OF AMERICAN STATE PARTS”**

DR. MASOUD MIRZAEI

ABSTRACT

Analytical solutions with the American state part equations of motion thanks to the combined impact of zonal harmonics J_2, J_3 and J_4 and drag by considering an analytical oblate diurnal exponential density model once density scale height varies with altitude is obtained victimization series enlargement methodology. Terms up to 3rd terms in e , eccentricity, c , a tiny low parameter betting on the bulginess of the atmosphere and second order terms in μ , gradient of the size height altitude square measure thought of. The American state part equations square measure numerically integrated (NUM) through a hard and fast step size fourth-order Runge-Kutta-Gill methodology having a really tiny step-size of $[^*fr1]$ degree within the eccentric anomaly for comparison analytically integrated (ANAL) values. when one hundred revolutions, decrease in Squabble of Prissies, ω , at Prissies height = four hundred kilometer, $e = 0.1$ and inclination $i =$ twenty and eighty degrees, square measure found to be seven.42 and 39.8 degrees. At $i = 80$ degree, the proportion error = $(ANAL - NUM) / NUM$ when one and one hundred revolutions square measure zero.61 and 2.09.

KEYWORDS

American state elements, Zonal harmonics, region drag, Analytic integration.

REFERENCES

1. Diamond State Nike J the impact of the Earth’s Impetuosity and Atmosphere in an exceedingly Satellite Orbit J of the Franklin Institute treatise.

2. Hoots metallic element Theory of the Motion of a synthetic Earth Satellite astronomy.
3. Lane MH the event of a synthetic Satellite Theory employing a Power-Law region Density Representation AIAA paper AIAA a pair of and region Sciences Meeting the big apple.
4. Joachim LG (1964) Static Diffusion Models of the higher Atmosphere with Empirical Temperature. Profiles.
5. Jacchia LG New Static Models of the layer and layer with Empirical Temperature

AUTHOR'S AFFILIATION

DR. MASOUD MIRZAEI

Department of Mathematics & Scientific Technology, Iraq.