

Thesis Title      Earth-Moon-Satellite Problem with the Bulirsch-Stoer-Gragg  
                         Method of Rational Extrapolation  
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## ABSTRACT

Satellite orbits can be described by a mathematical model. We consider the forces from the Earth and the Moon that effect the satellite using 2 second order differential equations and transfer these to 4 first order differential equations. Then we use the Bulirsch-Stoer-Gragg method to find the solutions of the satellite orbit in 2 dimensions, faster than the RK4 method with solutions that are accurate and precise.