Dynamical properties of the Molniya satellite constellation: long-term evolution of orbital eccentricity

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SUPPLEMENTARY MATERIAL 2

In the following figures, we show the eccentricity evolution obtained by assuming different levels of approximation for the third-body perturbation in e, i, Ω, ω, compared against the TLE evolution.
The color code is the following:

- cyan: TLE evolution;
- green: evolution obtained by applying *model 1*;
- red: evolution obtained by applying *model 2*;
- black: evolution obtained by applying *model 3*;
- yellow: evolution obtained by applying *model 4*.

Each plot corresponds to a satellite of Tab. 1 of the main paper. The ordering is left to right, top to bottom.

In Fig. 1, orbits #1-15 are reported.
In Fig. 2, orbits #16-30 are reported.
In Fig. 3, orbits #31-42 are reported.

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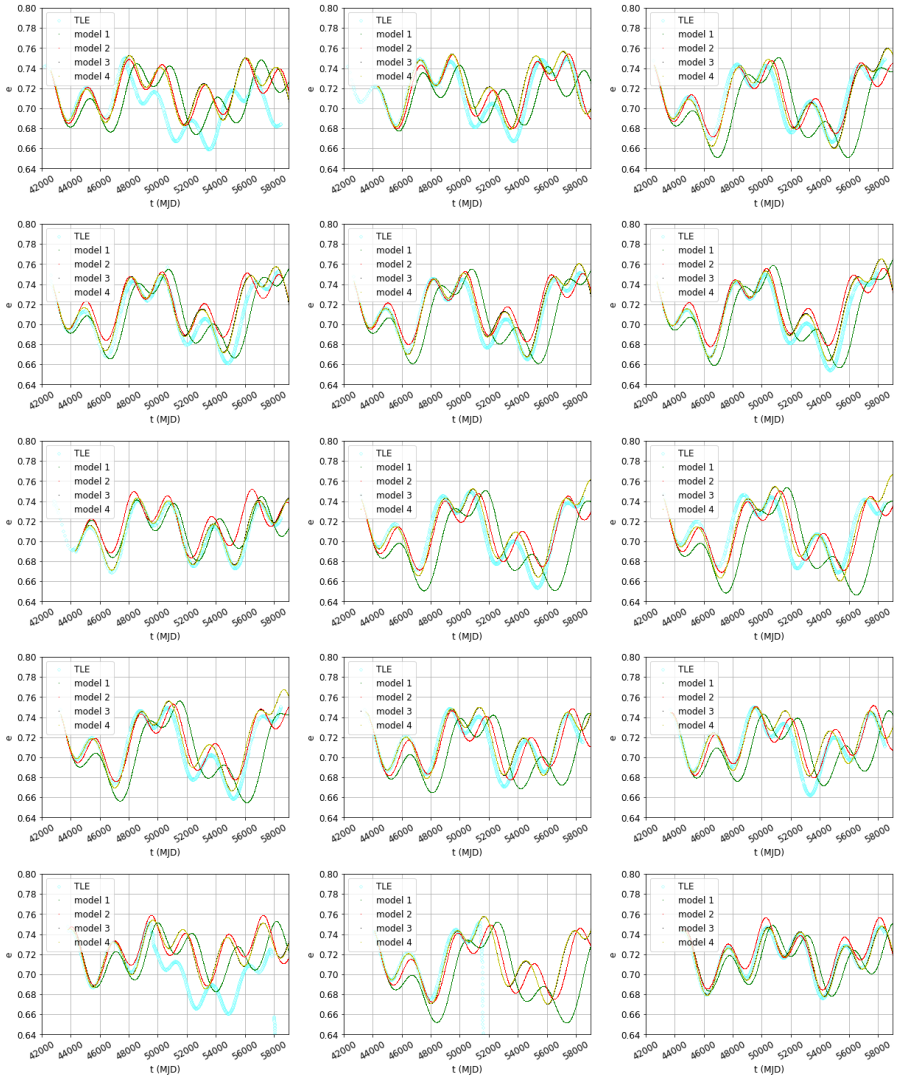

Figure 1

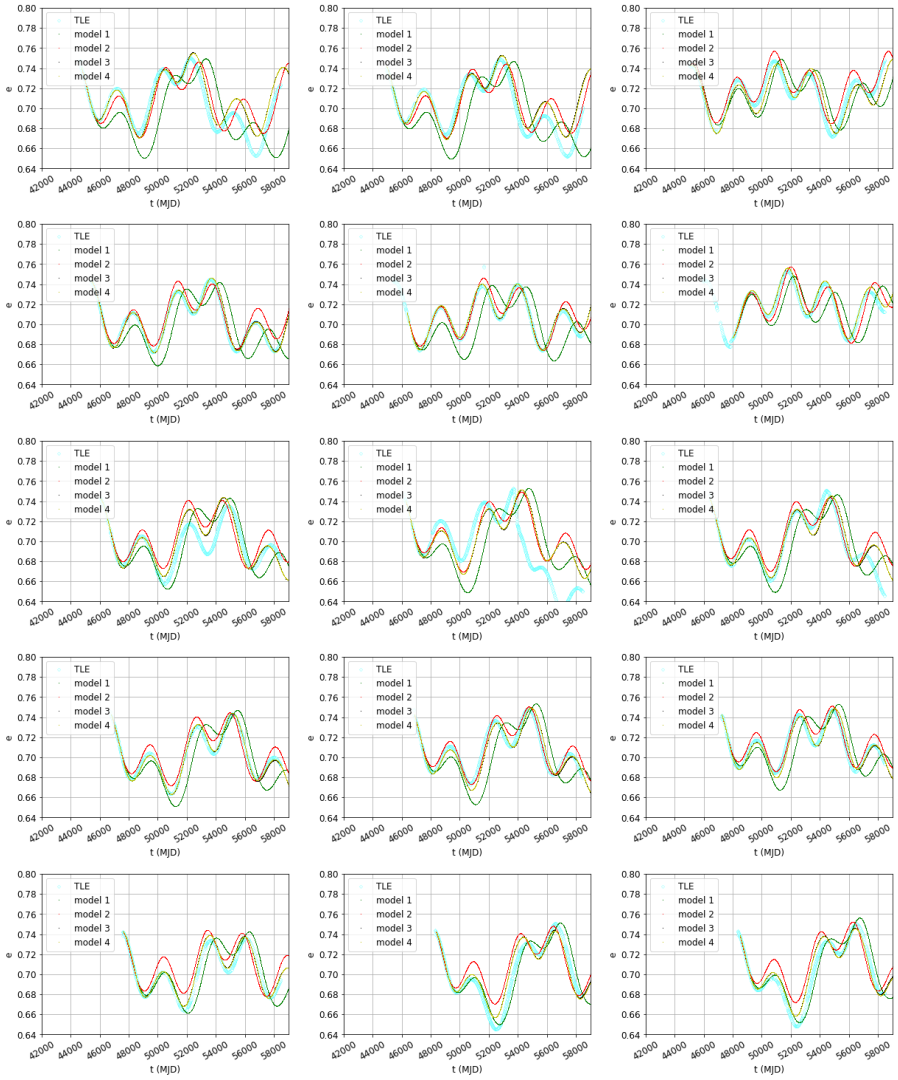

Figure 2

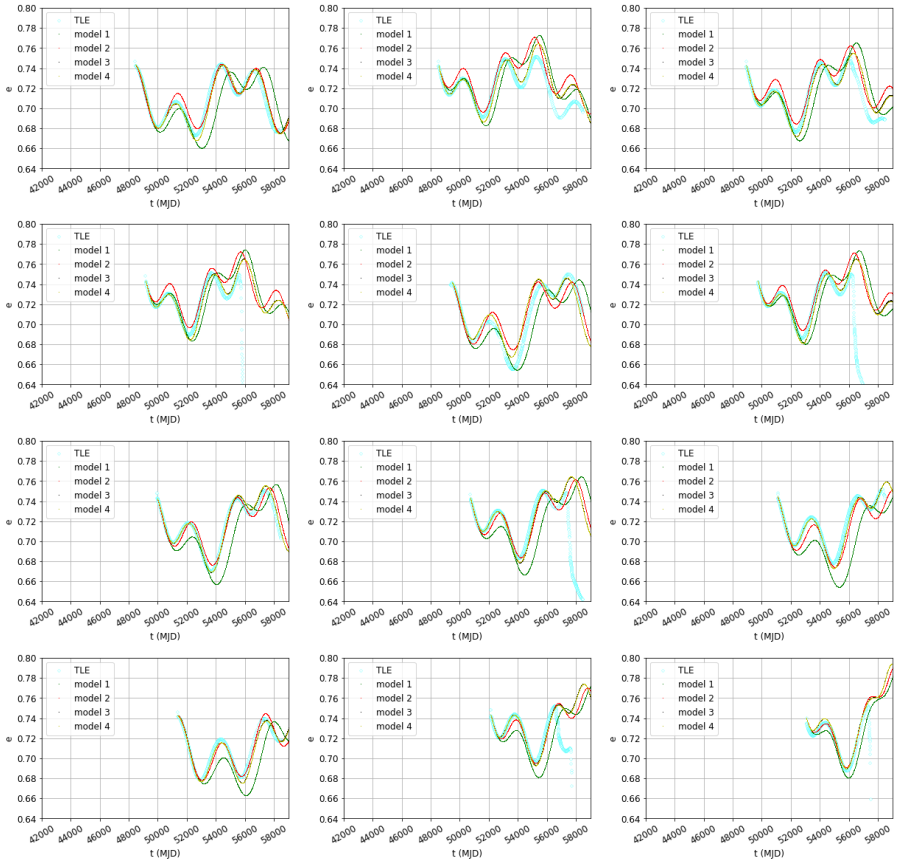

Figure 3