

**Impact of 25 years of Etalon-1 and Etalon-2 data.** Florent Deleflie<sup>1</sup>, David Coulot<sup>2,1</sup>, Jean-Marie Torre<sup>3</sup> and Franck Reinquin<sup>4</sup>, <sup>1</sup>GRGS/IMCCE Observatoire de Paris Université Lille1 UMPC , 77 Avenue Denfert Rochereau, F-75014 PARIS florent.deleflie@imcce.fr, <sup>2</sup>GRGS/IGN Univ. Paris Diderot, <sup>3</sup>GRGS/OCA-Geoazur, <sup>4</sup>GRGS/CNES

Launched at the end of the eighties, the two Etalon-1 and -2 SLR satellites are very good targets provided by the ILRS to test the long term stability of the trajectories in the MEO region, in view of defining disposal orbits for GNSS satellites. We use the data acquired by the ILRS network to adjust precise orbits, and we remove the short periodic terms to deduce elements that are comparable to TLE data sets. Then, we propagate the initial state vectors that are obtained from that filtering approach over two centuries to analyse the long term evolution of the Etalon trajectories, and in particular to investigate the role played by the third-body resonances.

In a second part of this paper, we draw a quick assessment of the impact of the Etalon data on the products delivered by the ILRS. Even if not so observed as the other SLR targets, Etalon-1 and -2 are data are still analyzed within the AWG on a regular basis, to deduce the operational products such as the Earth Orientation Parameters or Station Coordinates.