



SCUOLA
NORMALE
SUPERIORE
PISA

SEMINARIO DI SISTEMI DINAMICI

5 novembre 2009
ore 16.00

Scuola Normale Superiore
Pisa
(Aula Bianchi)

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Terrà un seminario dal titolo:

“Resampling-based estimation of the accuracy of satellite ephemerides”

Abstract:

The accuracy of predicted orbital positions of satellites depends on the quality of the theoretical model and of the observations used to fit the model. During the period of observations, this accuracy can be estimated through comparison with observations. Outside this period, the estimation remains difficult. Many methods have been developed for asteroid ephemerides in order to evaluate this accuracy. We introduce in this talk a new method for estimating the accuracy of predicted positions at any time, in particular outside the observation period. This method is based upon the bootstrap resampling scheme, and allows this estimation with minimal assumptions. The method is applied to two of the main Saturnian satellites, Mimas and Titan, and compared with other methods used previously for asteroids. The bootstrap-based method turns out to be robust and practical for estimating the accuracy of predicted positions. This talk is based on a joint work with J. Desmars, J.-E. Arlot, V. Lainey and A. Vienne.

Tutti gli interessati sono invitati a partecipare.

La Segreteria della
Classe di Scienze