

INDAM MEETING:  
**HYPERBOLIC DYNAMICAL SYSTEMS  
IN THE SCIENCES**

CORINALDO (ITALY)  
MAY 31 - JUNE 4, 2010

CARLO CARMINATI (Università di Pisa)

**A canonical thickening of the rationals and the dynamics of continued fractions**

We construct a countable family of open intervals contained in  $(0, 1]$  whose endpoints are quadratic surds and such that their union is a full measure set. We then show that these intervals are precisely the monotonicity intervals of the entropy of  $\alpha$ -continued fractions, thus proving a conjecture of Nakada and Natsui.