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**Piotr Oprocha\*** (oprocha@agh.edu.pl), Faculty of Applied Mathematics, AGH University of Science and Technology, al. Mickiewicza 30, 30-059 Krakow, Poland. *Invariant scrambled sets and interval maps.*

In their famous paper "Period three implies chaos", Li and Yorke started a study of a very important phenomena in dynamical systems (known presently under the name Li-Yorke chaos). A fundamental part of their definition is so-called scrambled set. Recently, it was proved by Du that an interval map  $f$  is turbulent if and only if there is an invariant scrambled set for  $f$ . In this talk we will survey known results on invariant scrambled sets, with particular emphasis on the case of continua. We will also present how results of Du can be extended in the case of distributionally scrambled sets. (Received August 19, 2008)