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Sommario/riassunto	Interestin the application of multifractal analysis to plastic flow instability is twofold. On the one hand, the unstable, or jerky, flow is a self-organization phenomenon which exhibits a great wealth of behavior. It may be associated to various microscopic instability mechanisms, whereas the same microscopic mechanism may result in

various dynamic regimes including deterministic chaos and self-organized criticality. On the other hand, the study of the concomitant dynamics may shed light on the collective behavior of dislocations and their interaction with other crystal defects.The investigations of the fractal properties of serrated deformation curves started several years ago on the case of the Portevin-Le Chatelier (PLC) effect - the jerky flow of alloys, caused by the dislocation-solute interaction. Specifically, it was found that the multifractal analysis makes possible a quantitative characterization of the distinct dynamical regimes of the PLC effect, which are related to its traditional classification based on the kinetics of the deformation bands giving rise to the serrations, and on the resulting shape of the deformation curves.This book reports the recent progress in the experimental investigation of the PLC effect by multifractal analysis.