ICM 1998, Berlin, Aug. 18–27

Abstracts of Plenary and Invited Lectures

Section:

9. Ordinary Differential Equations and Dynamical Systems

1991 MS Classification: 30D05, 30F40, 58F11, 58F23
McMullen, Curtis T., Harvard University, USA
Rigidity and inflexibility in conformal dynamics

This talk will present advances in the theory of conformal dynamical systems, especially rational maps on the Riemann sphere and Kleinian groups. We will discuss a connection between the rigidity of hyperbolic 3-manifolds and universal scaling phenomena in dynamics, and its role in the theory of 3-manifolds that fiber over the circle, renormalization of unimodal maps, critical circle maps and Siegel disks.