

# CONTEMPORARY MATHEMATICS

590

## In the Tradition of Ahlfors-Bers, VI

5th Ahlfors-Bers Colloquium  
March 24–27, 2011  
Rice University,  
Houston, TX

Ursula Hamenstädt  
Alan W. Reid  
Rubí Rodríguez  
Steffen Rohde  
Michael Wolf  
Editors



American Mathematical Society

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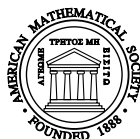
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## Preface

The Ahlfors-Bers Colloquia commemorate the mathematical legacy of Lars Ahlfors and Lipman Bers. The core of this legacy lies in the fields of geometric function theory, Teichmüller theory, hyperbolic geometry, and partial differential equations. However, the work of Ahlfors and Bers has impacted and created interactions with many other fields of mathematics, such as algebraic geometry, dynamical systems, topology, geometric group theory, mathematical physics, and number theory. Recent years have seen a flowering of this legacy with an increased interest in their work.

This current volume contains articles on a wide variety of subjects that are central to this legacy. These include papers in Kleinian groups, classical Riemann surface theory, translation surfaces, algebraic geometry and dynamics. The majority of the papers present new research, but there are survey articles as well.

There have been five volumes of these colloquia previously published by AMS in the Contemporary Mathematics Series: volumes 211, 256, 335, 432, and 510.

Ursula Hamenstädt  
Alan W. Reid  
Rubí E. Rodríguez  
Steffen Rohde  
Michael Wolf





## Plenary Talks

Tadeusz Iwaniec (Syracuse) The Hopf-Laplace Equation

Steve Kerckhoff (Stanford) Life without Ahlfors-Bers: Hyperbolic structures in higher dimensions

Bruce Kleiner (NYU) Asymptotic geometry, finite generation of fundamental groups, and harmonic functions

Greg Lawler (Chicago) Geometric and Fractal Properties of the Schramm-Loewner Evolution

Vlad Markovic (Warwick) The Good Pants and the Ehrenpreis Conjecture

Martin Moeller (Frankfurt) Non-varying sum of Lyapunov exponents for the Teichmüller geodesic flow

Eero Saksman (Helsinki) On random conformal weldings

Anna Wienhard (Princeton) Domains of Discontinuity for Anosov representations

Amie Wilkinson (Northwestern) The Weil Petersson geodesic flow is ergodic



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