



Mathematics Colloquium of the University of Luxembourg

in cooperation with the
Luxembourg Mathematical Society

Tuesday June 12th 2018, 17:00,

Belval, Maison du Savoir 3.370

Professor Michael Wolf (Rice University, Texas)

Michael Wolf is Professor and Department Chair at Rice University. He conducts research on Teichmüller Theory, Harmonic Maps, Minimal Surfaces and Global Differential Geometry. Among other results, he characterized the Thurston compactification of Teichmüller space in terms of harmonic maps, and (in joint work with Scannell) proved the grafting conjecture. His work with Weber and Hoffman on the genus one helicoid, the first complete minimal surface of infinite curvature but finite topology discovered since the helicoid, garnered some public interest.



He just completed terms on the editorial boards of the Proceedings and the Bulletin of the American Mathematical Society. He is a Fellow of the American Math. Soc. (Inaugural Class), and was an Alfred P. Sloan Research Fellow.

Sheared Pleated surfaces and Limiting Configurations for Hitchin's equations

A recent work by Mazzeo-Swoboda-Weiss-Witt describes a stratum of the frontier of the space of $SL(2, \mathbb{C})$ surface group representations in terms of 'limiting configurations' which solve a degenerated version of Hitchin's equations on a Riemann surface. We interpret these objects, originally defined gauge-theoretically, in terms of the hyperbolic geometric objects of shearings of pleated surfaces. The two perspectives are related via a third, the shapes of harmonic maps of surfaces. We aim to introduce the elements we need from each of the three areas. (Joint with Andreas Ott, Jan Swoboda, and Richard Wentworth.)

Coffee, tea and cookies : 16:40 (6th floor MNO, in the kitchen corner furthest from the elevator).

RMATH contact: Jean-Marc Schlenker.

Coordinator: Alexander D. Rahm.