Jean-Pierre OTAL (Lille / ENS Lyon)

About the embedding of the Teichmüller space in the space of geodesic distributions

For a Fuchsian group Γ, F. Bonahon has introduced the space of *geodesic currents* $\mathcal{C}(\Gamma)$ as the space of the Γ-invariant Radon measures on the space of geodesics $\mathcal{G}$ of the hyperbolic disc. He showed that the Teichmüller space $\mathcal{T}(\Gamma)$ embeds into $\mathcal{C}(\Gamma)$ through the map "Liouville measure". The space $\mathcal{C}(\Gamma)$ is contained in the space $\mathcal{H}(\Gamma)$ of the Hölder distributions on $\mathcal{G}$ which are Γ-invariant. In this talk, we will show that the embedding of Teichmüller space in the space of Hölder distributions is analytic.

William HARVEY (King's College London)

Symmetry and rigidity in low dimensional moduli spaces

I will describe some aspects of the geometry of moduli space for low genus ($g \leq 4$, say) which are related to (finite) automorphism groups of geometric objects of venerable origin, like the 27 lines in a cubic surface and the bitangents of a quartic curve. In particular I hope to indicate something of the essential difference between the Teichmüller approach to moduli and this more classical theory.

A further matter which intrudes is the (if not paradoxical then at least surprising) fact that rigidity theorems from Teichmuller moduli theory are no longer valid in the different environment of complex projective moduli: an example of Hunt and Weintraub provides two isomorphic modular varieties of genus 2 and genus 4.

Walter FREYN (Augsburg)

An elementary proof of Teichmüller's Theorem

The well known theorem of Teichmller classifies the complex structures on a compact orientable topological surface of negative Euler characteristic. As each complex structures can be identified with a hyperbolic metrics, this is equivalent to the classification of hyperbolic metrics.

By use of hyperbolic geometry, an easy proof of the theorem of Teichmller can be given: the surface is cut into hyperbolic ideal triangles. As an ideal triangle is uniquely determined, the geometry on the surface will not depend but of the identification of the boundaries of the ideal triangles.

Greg McSHANE (Toulouse)

Introduction to higher Teichmüller theory