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# Géométrie et dynamique dans les espaces de modules

(Carlos Matheus, Bram Petri et Anton Zorich)

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Un **mercredi** par mois de **14h à 15h** à l'**Institut Henri Poincaré**.

Séminaire au mois de Avril:

- **24/04/2024 - Alexander Bobenko** (Technische Universität Berlin)

**Titre:** *Orthogonal ring patterns, discrete surfaces and integrable systems*

**Résumé:** We introduce orthogonal ring patterns consisting of pairs of concentric circles. They generalize orthogonal circle patterns which can be treated as conformal limit. It is shown that orthogonal ring patterns in Euclidean and hyperbolic planes and in a sphere are governed by integrable equations. We deliver variational principles which are used to prove existence and uniqueness results, and also to compute ring patterns with classical boundary conditions. The later are used to generate discrete cmc surfaces. Relation to minimal surfaces in  $S^3$  and  $AdS^3$  is discussed. Numerous virtual and printed models as well as animation movies will be demonstrated.

**Salle Olga Ladyjenskaïa (ex-salle 01)**  
INSTITUT HENRI POINCARÉ  
*11 Rue Pierre et Marie Curie, 75005 Paris*