

## **Margulis spacetimes, the arc complex, and the Crooked Plane Conjecture II**

Fanny Kassel, Université de Lille I

Margulis spacetimes are complete flat Lorentzian 3-manifolds with free fundamental group. Drumm and Goldman conjectured that they all admit a fundamental domain bounded by piecewise linear objects called crooked planes. I will explain how this conjecture follows from the fact that any uniformly lengthening infinitesimal deformation of a noncompact hyperbolic surface can be realized as an infinitesimal strip deformation (see J. Danciger's talk). This provides a new proof of the fact that Margulis spacetimes are tame. If time allows, I will mention an analogue of this theory for complete anti-de Sitter 3-manifolds. This is joint work with Jeffrey Danciger and François Guéritaud.