

# **Anti-de Sitter 3-manifolds, Margulis spacetimes, and their higher-dimensional analogues**

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In 1983, Margulis constructed the first examples of proper affine actions of free groups on  $\mathbb{R}^3$ . I will describe the geometry and topology of the corresponding quotients, which are flat Lorentzian 3-manifolds known as Margulis spacetimes, and of their negatively-curved counterparts, known as anti-de Sitter 3-manifolds. It is actually possible to perform similar constructions in higher dimension with a variety of discrete groups, not necessarily free.

This is joint work with J. Danciger and F. Guéritaud.