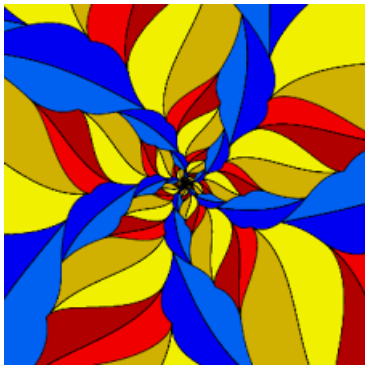
Oberseminar Geometrie
Department of Mathematics
University of Fribourg
Physics 2.52
Wednesday, 10 April 2024, 10:20



Sofia Amontova (UniGE)

Numerical invariants of representations of complex hyperbolic lattices

Representations of fundamental groups of manifolds into $\mathrm{PU}(n,1)$ have been studied from various viewpoints. In the context of higher Teichmüller theory, the so-called Toledo invariant in its different incarnations has been most commonly employed to single out special classes of representations of surface groups. In the extended setting of higher dimensional non-compact complex hyperbolic manifolds of finite volume, other types of volume invariants prove to be useful. The talk aims to present the volume invariant of representations using the machinery of bounded cohomology and to prove an integrality result in the extended setting. Joint work with Michelle Bucher.