

The ptolemy module - a SnapPy tool to study $\mathrm{PGL}(N, \mathbb{C})$ -representations of 3-manifolds

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Shape and Ptolemy coordinates are effective tools to compute $\mathrm{PGL}(N, \mathbb{C})$ -representations for 3-manifold groups. Using these coordinates one can compute volume, Bloch group invariants, shape fields etc. In this talk, we will review the mathematical background of shape and Ptolemy coordinates and illustrate the theory using the ptolemy module.