

Meeting: 999, Nashville, Tennessee, SS 10A, Special Session on Geometry of Hyperbolic Manifolds

999-57-184 **Stephan Tillmann*** (tillmann@math.uqam.ca), Université du Québec à Montréal, 201, ave
Président Kennedy, PK-5213, Montréal, Québec H2X 3Y7, Canada, and **Benjamin Klaff**
(klaff@math.uqam.ca), Université du Québec à Montréal, 201, ave Président Kennedy, PK-5213,
Montréal, Québec H2X 3Y7, Canada. *A birationality result for character varieties.*

I discuss the birational equivalence between the following two varieties associated to $\mathrm{PSL}(2, \mathbb{C})$ -representations of a cusped, finite-volume hyperbolic 3-manifold M :

(1) the "Dehn surgery" component X of the character variety of M ,

and

(2) the image of X in the character variety of the boundary of a compact core for M (under the restriction map of characters induced by the inclusion of the boundary into M).

The equivalence is established by generalising Dunfield's arguments (who obtained it in the 1-cusped case) using the so-called Hodgson-Schläfli volume form, representation volume and a nicely chosen Zariski dense set in the image of X . This is joint work with Ben Klaff. (Received August 23, 2004)