



The Abdus Salam
International Centre
for Theoretical Physics



ICTP COLLOQUIUM

Wednesday 1 June 2016 at 16:30
Budinich Lecture Hall, Leonardo Building, ICTP

The virtual fibering conjecture

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Abstract:

Certain 3-dimensional manifolds may be formed out of lower-dimensional spaces (curves and surfaces) by taking products, or more generally by twisted products called fibrations. Prof. Agol will describe some of these constructions, and limitations on which 3-manifolds can be constructed this way. He will describe a question of William Thurston which implies that any hyperbolic 3-manifold may be constructed as a fibration up to passing to finite covers. He will then indicate some of the tools that go into the resolution of this question.

Biosketch:

Ian Agol is a professor of mathematics at the University of California Berkeley. He is the recipient of the 2016 Breakthrough Prize in Mathematics for spectacular contributions to low dimensional topology and geometric group theory. Agol studies the topology and geometry of three-dimensional spaces, such as our own universe. He has donated part of his Breakthrough Prize winnings to support graduate students from developing countries through the Breakout Graduate Fellowships administered by the International Mathematical Union.