

# **Ulrike Tillmann**

## **Moduli spaces in the eyes of a topologist: Mumford's conjecture and beyond**

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Moduli spaces were first studied by Riemann, and have been a central object of mathematical study ever since. 25 years ago Mumford initiated the systematic study of its topology. In this lecture I will review some background and explain how a fusion of ideas from conformal field theory and algebraic topology led to the proof of Mumford's conjecture on the stable cohomology of moduli spaces. The methods of proof have been generalised yielding new exciting applications in higher and lower dimensions.

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