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Julien Roger* (juroger@math.rutgers.edu), Department of Mathematics, Rutgers University, 110 Frelinghuysen Rd., Piscataway, NJ 08854-8019. *Quantum Teichmüller theory and conformal field theory.*

The aim of this talk is to describe the construction of the quantum Teichmüller space, emphasizing its connection with hyperbolic geometry and the Weil-Petersson geometry of Teichmüller space, and then to analyze its relationship with conformal field theory. One of the goals of this work is the construction of a family of representations of the mapping class groups, also known as a modular functor. (Received February 15, 2011)