

BOSTON UNIVERSITY NUMBER THEORY SEMINAR

# Quantum and Mock Modular Forms

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Monday, May 1 at 4:15 pm  
111 Cummington Mall, MCS B21  
Tea and cookies in MCS 144 at 4:00 pm

**Abstract:** Mock modular forms were first formally defined in the literature by Zagier in 2007, though their roots trace back to Ramanujan's mock theta functions from 1920. Zagier defined quantum modular forms in 2010; they are like mock modular forms in that they feign modularity in some way, but they are not, a priori, defined on the upper-half of the complex plane. In this talk, we will discuss connections made between these two developing subjects by various authors. As an application of these theories, we will also describe joint work with Ono and Rhoades on an unsubstantiated claim made by Ramanujan.