Will give a lecture entitled
Modular linear differential equations

Date: Tuesday, February 25, 2020
Time: 4:00 PM
Location: 229 Hayes-Healy Hall
Departmental Tea: Tea in Room 257 (lounge in Hurley Hall) at 3:30 p.m.

Abstract:
The notion of modular linear differential equations (MLDEs) first appeared in mathematics in the late 90's due to Y. Zhu who built the theory of conformal filed theories over a family of elliptic curves in a mathematically rigorous way using the notion of vertex operator algebras. Since his theory is equivariant under the slash action of modular groups, the space of one-point functions are also invariant by the same action. This modular invariance is proved by using the fact that spaces of one-point functions are equal to the space of solutions of monic MLDEs. In this colloquim talk I will explain how MLDEs characterize several VOAs, like the minimal models, which are known in conformal field theory (CFT).