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Knots and modular forms. Preliminary report.

In 2006, Dasbach and Lin observed stability in the coefficients of the N th colored Jones polynomial for alternating knots. This observation and its consequences have sparked a flurry of activity in both number theory and quantum topology. For example, Garoufalidis, Le and Zagier conjectured identities which have a striking resemblance to those occurring in the classical setting of Rogers and Ramanujan. In this talk, we discuss these developments and the construction of a new infinite family of quantum knot invariants which are related to modular forms. This is partly joint work with Paul Beirne (UCD). (Received January 31, 2018)