

1137-14-181

Sarah Frei* (sfrei@uoregon.edu). *Moduli spaces of sheaves on a K3 surface and Galois representations.*

There have been some interesting results in recent years about derived equivalences of varieties implying equality of their zeta functions. I will tell you about a new result extending this idea to moduli spaces of stable sheaves on a K3 surface. It turns out that regardless of derived equivalence, two such moduli spaces of the same dimension have equal zeta functions. We arrive at this result by studying the cohomology groups of the moduli spaces as Galois representations. (Received February 02, 2018)