Olivier Dudas and Emily Norton* (norton@mathematik.uni-kl.de). New decomposition numbers of finite classical groups via categorification.

Gerber-Hiss-Jacon conjectured a combinatorial rule for the Harish-Chandra induction and restriction of modular unipotent representations of finite unitary groups. This conjecture was proved by Dudas-Varagnolo-Vasserot by constructing a categorical action of a Kac-Moody algebra on the representation categories in question. Moreover, they showed the categorical action exists for finite odd orthogonal and symplectic groups as well. However, their result had not been used so far to find decomposition numbers (the analog of Kazhdan-Lusztig multiplicities in this setting), about which little is currently known. I will explain some results in this direction from recent and ongoing joint work with Olivier Dudas. (Received March 09, 2021)