1151-17-271   **James Lepowsky*** (`lepowsky@math.rutgers.edu`). *A program to categorify "motivated proofs" of generalized Rogers-Ramanujan identities.* Preliminary report.

Many families of generalized Rogers-Ramanujan identities have been interpreted by means of vertex operator algebra theory, and in fact, classical q-series theory has stimulated a lot of fundamental research in the representation theory of vertex operator algebras. A theory of twisted intertwining operators that will provide conceptual underpinnings for a family of proofs termed "motivated proofs" of such identities is being developed. Twisted intertwining operators relate triples of twisted modules for a suitable generalized vertex operator algebra. I will sketch this program and report on recent progress—joint work with Jay Cushing, Alejandro Ginory, Shashank Kanade and Jason Saied. (Received August 20, 2019)