1119-22-143   **Vinoth Nandakumar*** (`vinoth@math.utah.edu`), 155 S 1400 E, Salt Lake City, UT 84112, and **Gufang Zhao**. *Categorifying $U_q(sl_2)$ representations via blocks of modular representations for sl_m.*

Using results of Bernstein-Frenkel-Khovanov, Stroppel, Sussan, etc., one obtains a categorification of tensor products of the standard representation of $U_q(sl_2)$ using singular blocks of category O for sl_m. The simple objects in these categories give us the canonical basis under this categorification. Here we describe a positive characteristic analogue of this picture: we categorify the same tensor product representation of sl_2, using blocks of representations of sl_m in positive characteristic (with zero Frobenius character, and singular Harish-Chandra character). This is closely related to a geometric categorification constructed by Cautis, Kamnitzer and Licata. Joint work with Gufang Zhao. (Received February 13, 2016)

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