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Arun Ram and **Nathaniel Thiem**. *A q -analog of the partition algebra*. Preliminary report.

The partition algebra $P_k(n)$ is the centralizer of the symmetric group S_n acting on the k -fold tensor product $V^{\otimes k}$ of its n -dimensional permutation representation V . The module $V^{\otimes k}$ is isomorphic to the module given by k iterations of restriction and induction between S_n and S_{n-1} . We study the analogous centralizer algebra $Q_k(n, q)$ given by k iterations of Harish-Chandra restriction and induction between finite general linear groups $GL_n(\mathbb{F}_q)$ and $GL_{n-1}(\mathbb{F}_q)$. Then $Q_k(n, q)$ is a q -analog of the partition algebra $P_k(n)$. (Received September 15, 2013)