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Stephen P. Griffeth* (griffeth@math.umn.edu). *Picturing the compositions series of rational Cherednik algebra modules for the groups $G(r, p, n)$* . Preliminary report.

We explain an approach to understanding the composition series of certain modules for the rational Cherednik algebra by using intertwining operators and weight space decompositions. The composition factors correspond to the connected components of a certain graph, which may be thought of as all lattice points within certain regions in $(\mathbb{Z}_{\geq 0})^n/S_n$. In particular, many interesting examples of finite dimensional modules can be read off this graph. (Received February 26, 2007)