1150-42-493  Eyvindur A Palsson* (palsson@vt.edu), Department of Mathematics, McBryde Hall, 225 Stanger Street, Blacksburg, VA 24061, and Theresa C Anderson. Bounds for a discrete variant of the bilinear spherical maximal operator.

The spherical maximal operator introduced by Stein and its boundedness is a classical object in Harmonic Analysis. Oberlin considered a multilinear version thereof, which only recently received much attention, culminating in a full range of estimates by Jeong and Lee. On the discrete side, classic results first by Magyar and then by Magyar, Stein and Wainger established a full range of estimates for the discrete analogue of the spherical maximal operator. Likewise one can consider the discrete analogue of the multilinear spherical maximal operator. The first bounds on such an operator were obtained by Cook. In this talk, I will discuss a wider range of bounds, done in collaboration with Theresa Anderson. (Received July 15, 2019)