Sangbum Cho and Darryl McCullough* (dmccullough@math.ou.edu), Department of Mathematics, University of Oklahoma, Norman, OK 73019. Applications of the disk complex of the genus-2 handlebody to knot theory. Preliminary report.

The disk complex of the genus-2 handlebody is very special, and has a rich yet accessible combinatorial structure. We will discuss some recent new applications of this structure to knots in the 3-sphere. (Received September 04, 2006)