1023-20-1532 Noel Brady and Max Forester* (forester@math.ou.edu), Mathematics Department, University of Oklahoma, Norman, OK 73019. *High dimensional isoperimetric functions of groups.* I will discuss recent progress on the problem of determining the coarse structure of the k-dimensional isoperimetric spectrum, for k > 1. This spectrum is the set of expenents s for which the function x^s is the k-dimensional Dehn function of a group. Such functions describe the optimal k-dimensional isoperimetric inequality that holds in any model for the group. This is joint work with Noel Brady. (Received September 26, 2006)