The minimal resolution of a Cohen-Macaulay module over a hypersurface ring is well-understood, and some information about the codimension 2 case was obtained by Avramov and Buchweitz, but for general codimension the situation has been mysterious. I will describe recent joint work with Irena Peeva that bears on the problem of describing such minimal resolutions in all codimensions. (Received September 15, 2012)