It is well-known that \( S \) is a power series ring of dimension \( d \) and \( a_1, \ldots, a_d \) is a regular sequence in \( S \) then the Artinian module \( S/(a_1, \ldots, a_d) \) is self-dual (that is, Gorenstein). About 25 years ago Duco van Straten pointed out a remarkable extension: if the ideal \( J = (a_1, \ldots, a_d) \) has codimension only \( d - 1 \), and \( I \) is its unmixed part, then \( J/I \) is a self-dual module.

It turns out that this is the beginning of a general theory of duality for residual intersections. I will describe work of Craig Huneke and Bernd Ulrich, and a recent collaboration with Bernd Ulrich on this topic. (Received September 02, 2015)