1033-35-141 **Kris Jenssen*** (hkj1@psu.edu), Dept. Mathematics, Penn State University, State College, PA 16802, **Erik Endres**, Dept. Mathematics, Penn State University, State College, PA 16802, and **Mark Williams**. *Stationary gas dynamical shocks with symmetry.*

We construct and analyze stationary shocks for the compressible Euler equations in two and three space dimensions. The solutions are stationary and contain a single standing shock located between two concentric spheres or cylinders. We discuss how the inflow/outflow conditions on the boundaries are related to the location of the shock. These shock solutions provide the basic building block for corresponding viscous shock layer solutions to the Navier-Stokes equations (see Mark Williams' presentation). This is joint work with Erik Endres (Penn State) and Mark Williams (UNC, Chapel Hill). (Received September 08, 2007)