1117-05-546   **Jay Schweig** and **Russ Woodroofe*** (`rw1003@msstate.edu`). *A broad class of shellable lattices.* Motivated by the problem of shelling the order congruence lattices of finite posets, we have discovered a new broad class of shellable lattices. The definition of the class is, viewed from one perspective, a purely lattice-theoretic analogue of (the subgroup lattice of) a solvable group. Our construction gives a unified proof of shellability for many of the known examples of shellable lattices.

I'll describe the class of lattices, then explain why many subposets of the partition lattice are in this class.

This is joint work with Jay Schweig. (Received January 20, 2016)