1142-13-166 Jay Schweig^{*}, jayschweig[@]gmail.com, and Russ Woodroofe. Order partition lattices.

We discuss order partition lattices, which are common generalizations of Boolean lattices and classical partition lattices. We show that all such lattices are shellable, generalizing several well-known results. We also prove that their h-vectors satisfy certain enumerative constraints. This is done using a convex-ear decomposition, which is a technique that should be useful to many researchers working in commutative algebra. No prior knowledge of such topics will be assumed. (Received September 02, 2018)