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Chris Francisco, Jeff Mermin* (mermin@math.okstate.edu) and **Jay Schweig**. *Generalizing the Borel condition.*

We introduce the idea of a monomial ideal being Borel with respect to a poset Q , and study standard commutative algebraic invariants (such as resolutions and primary decompositions) from this perspective. We attempt to use the poset structure of Q to interpolate between the theory of Borel-fixed ideals (which are Borel with respect to the chain) and the theory of arbitrary monomial ideals (which are Borel with respect to the antichain). (Received August 28, 2012)