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Amelia Taylor* (amelia.taylor@coloradocollege.edu), 14 E. Cache La Poudre St., Colorado Springs, CO 80903, and **Irena Swanson**. *Minimal primes of ideals arising from conditional independence statements.*

We describe (in a combinatorial way) the primary decomposition of a class of ideals arising in the context of conditional independence models. The ideals we consider generalize the ideals considered by Fink (2010) in a way distinct from that of Herzog, Hibi, Hreinsdottir, Kahle, and Rauh (2010). We give a combinatorial description of the the minimal components, along with the corresponding prime ideals(they turn out to be the same, although there are embedded primes) of these conditional independence ideals. Along the way we introduce an equivalence relation and recover some other interesting algebra and geometry results as a consequence of the development of the proof of our main result. (Received August 25, 2011)