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Christina Eubanks-Turner* (ceturner@louisiana.edu), P.O. Box 41010, Lafayette, LA 70504,
and **Melissa Luckas** and **Serpil Saydam**. *Prime Ideals in Birational Extensions of
Two-Dimensional Power Series Rings.*

In this article we describe the prime spectrum, the set of prime ideals, for certain two-dimensional polynomial and power series rings. Our main result is the characterization of those partially ordered sets that arise as prime spectra of simple birational extensions of a power series ring in one indeterminate with coefficients in a Noetherian one-dimensional integral domain that has infinitely many maximal ideals. (Received February 12, 2010)