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Alessandro De Stefani and **Eloísa Grifo***, eloisa.grifo@virginia.edu, and **Jack Jeffries**. *The Zariski-Nagata Theorem in mixed characteristic.*

In one of its classical versions, the Zariski-Nagata theorem states that if P is a prime ideal in a polynomial ring over the complex numbers, then the n -th symbolic power of P consists of all the polynomial functions that vanish up to order n along the variety defined by P . This can be also stated in terms of differential operators. In this talk, we will discuss analogous results in mixed characteristic, combining properties of differential operators and p -derivations. (Received January 18, 2018)