A mini-course on Hasse-Schmidt derivations

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Abstract: We will study multi-variate Hasse-Schmidt derivations as algebraic objects replacing classical derivations in non-zero characteristic and we will explain some of the the connections with jet and arc spaces.

The lectures will concern some of the material in:

1) *Rings of differential operators as enveloping algebras of Hasse–Schmidt derivations*, 2018. https://arxiv.org/abs/1807.10193

2) *On Hasse-Schmidt derivations: the action of substitution maps*, 2018. https://arxiv.org/abs/1802.09894