

Françoise Point: Transfer results in topological differential fields.

We consider certain classes of topological differential fields where one can axiomatize the class of its existentially closed members, for instance the class of ordered differential fields. We will consider the question of which properties transfer from the class of their existentially closed reducts (forgetting about the derivation), such as the NIP property, existence of "good" bounds for VC-density of definable sets, existence of a fibered dimension, density of definable types. We will give partial answers in particular in the case of closed ordered differential fields.

(Part of this work is joint with Quentin Brouette.)