



COLLOQUIUM DE ANÁLISIS MATEMÁTICO

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KL-desingularization: from the gradient dynamics to the sweeping process.

Abstract:

In this talk we review the desingularization of the derivative for a gradient system defined by an o-minimal functions (which leads to the smooth KL-inequality). We shall show that a similar process can be done for the co-derivative of the sweeping process map, whenever the latter is assumed to be o-minimal. This leads to the conclusion that bounded trajectories of a tame sweeping process have finite length. Moreover, Kurdyka desingularization of a smooth function can be seen as a special case of the co-derivative desingularization.

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