

RÉSUMÉS DES EXPOSÉS

SLAAG - 28 JANVIER 2026

Allen Gehret : *O-minimality, optimization, and deep learning*

In this expository talk I will discuss the subject of o-minimality, aka tame geometry, as a mathematical framework for studying modern deep learning systems. In particular, we will see how the o-minimality framework is conducive to proving convergence of the Stochastic Subgradient Method (SSM) in a nonsmooth nonconvex setting (based on the work of Davis, Drusvyatskiy, Kakade, Lee, Bolte, Daniilidis, Lewis, Shiotani, Pauwels,...). This talk is based on our survey <https://arxiv.org/abs/2509.18025> (joint with Bareilles, Aspman, Lepšová, Mareček) which was part of the Horizon Europe project AutoFair (Human-Compatible AI with Guarantees).