Speaker: Cédric M. Campos, Universidad Rey Juan Carlos, Spain

Title: Advances in optimization in non-Euclidean spaces: NAG-like methods on $SO(3)$ and S^2

Abstract: In Campos, Mahillo & Martín (2023, JMLR vol. 24), we show a variational derivation of Polyak's Heavy Ball (PHB), a.k.a. Classical Momentum (CM), and Nesterov's Accelerated Gradient (NAG). We have since further explored this path and will present some results in non-Euclidean spaces, namely, we will give examples of fully explicit NAG-like methods on the group of rotations and the unit sphere.