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Dipartimento di  
Scienze Matematiche  
G. L. Lagrange

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Online  
seminar

Wednesday February 03, 2021 at 17:30

Hosted on: [Zoom](#)

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## Regularized empirical risk minimization on random subspaces

Prof. Vaccarino introduces the seminar.

### Abstract

Regularized empirical risk minimization on Reproducing Kernel Hilbert spaces achieve optimal convergence rates, however they require huge computational resources on high dimensional datasets. In the recent years there is an increasing interest for extensions of empirical risk minimization where the hypothesis space is a low dimensional random space. This approach naturally leads to computational savings, but the question is whether the corresponding learning accuracy is degraded. If the random subspace is spanned by a random subset of the data, the statistical-computational tradeoff has been recently explored for the least squares loss and self-concordant loss functions, as the logistic loss. In this talk, based on a joint work with A. Della Vecchia, J. Mourtada and L. Rosasco, I will present some recent results dealing with non-smooth convex Lipschitz loss functions, as the hinge loss.

### Biography

Ernesto De Vito received his Ph.D. from Università of Genova in 1995. He held a post-doctoral position at Université de Sophia Antipolis in 1996. From 1997 to 2007, he was Assistant Professor at Department of Mathematics, Università of Modena. In 2007, he was with the Department of Mathematics, Università of Genova, where he is currently Full Professor in Probability.

He is part of MaLGA center and of Ellis Unit in Genova.