

## SEMPARIS – Séminaires en région parisienne

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### Séminaires du LPTM, Université de Cergy Pontoise

**Mardi 4 Juin 2019, 14 :00**

LPTM, 4.13 St Martin II( Ref : <https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.109.26>  
)

Domaines : CoRR.LG

Titre : *A journey in the statistical mechanical approach to neural networks : some novel results'*

Orateur : **Adriano Barra** ( Dpt. di Matematica & Fisica "Ennio De Giorgi", Università del Salento, Italie )

Résumé : *In this talk, provided a streamlined introduction to statistical learning and related information retrieval achieved by associative neural networks, I will deepen some recent progresses via their statistical mechanical formalization. I will focus on the nature of the information to store (i.e. analog vs digital patterns) and on the role of dilution in the underlying graphs where the neurons are hosted (particularly relating network 's dilution to spontaneous multi-tasking capabilities the net experiences as a whole). Finally, I will discuss how by 'letting these machines sleep' it is possible to sensibly increase their performances, much as their real (i.e. biological) counterparts.*

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