

Seminario de Probabilidades de Chile.

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Título: A novel notion of barycenter for probability distributions based on optimal weak mass transport.

Resumen: We introduce weak barycenters of a family of probability distributions, based on the recently developed notion of optimal weak transport of mass. We provide a theoretical analysis of this object and discuss its interpretation in the light of convex ordering between probability measures. In particular, we show that, rather than averaging in a geometric way the input distributions, as the Wasserstein barycenter based on classic optimal transport does, weak barycenters extract common geometric information shared by all the input distributions, encoded as a latent random variable that underlies all of them. We also provide an iterative algorithm to compute a weak barycenter for a finite family of input distributions, and a stochastic algorithm that computes them for arbitrary populations of laws. The latter approach is particularly well suited for the streaming setting, i.e., when distributions are observed sequentially.

El enlace para conectarse al seminario es:

Unirse a la reunión Zoom

<https://reuna.zoom.us/j/84521834914?pwd=OTZ6Y0NWMTM3pYTGtTbEt3c0luTG96UT09>

MIÉRCOLES 03 DE NOVIEMBRE DEL 2021 A LAS 16:15 HRS.