

Abstract Submitted
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**The cumulative overlap distribution function in spin glasses:
mean field vs. three dimensions**¹ DAVID YLLANES, Syracuse University,
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plutense de Madrid — We use a sample-dependent analysis, based on medians
and quantiles, to analyze the behavior of the overlap probability distribution in
spin glasses. Using analytical and numerical mean-field results for the Sherrington-
Kirkpatrick model, as well as data from toy models, we show that this approach is
an effective tool to distinguish the low-temperature behavior of replica symmetry
breaking systems from that expected in the droplet picture. An application of the
method to the three-dimensional Edwards-Anderson models shows agreement with
the replica symmetry breaking predictions.

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