

# Uniform Concentration and Symmetrization for Weak Interactions

MASSIMILIANO PONTIL

Department of Computer Science, University College London, UK

*Email:* [m.pontil@cs.ucl.ac.uk](mailto:m.pontil@cs.ucl.ac.uk)

---

The method to derive uniform bounds with Gaussian and Rademacher complexities is extended to the case where the sample average is replaced by a nonlinear statistic. Tight bounds are obtained for U-statistics, smoothed L-statistics and error functionals of l<sub>2</sub>-regularized algorithms.

(Joint work with Andreas Maurer, see: <https://arxiv.org/pdf/1902.01911.pdf>)