Informatics Research
Institute of Toulouse

*Within the framework of*
**ERC FACTORY**

## Monday 25 September 2017
**14h00 – 15h30**
**INP-ENSEEIHT, salle F422 (Bâtiment F, 4e étage, accès par badge)**


## Benjamin GUEDJ
**INRIA, Lille**


# A quasi-Bayesian perspective to NMF: theory and applications

Seminar


*Abstract:* Quasi-Bayesian estimators are increasingly popular in statistics and machine learning, due to their generalization properties and flexibility. In a recent work (Alquier & Guedj 2017, Mathematical Methods of Statistics), we have proposed a quasi-Bayesian estimator for non-negative matrix factorization (NMF). I will present a quick overview of quasi- and PAC-Bayesian frameworks and discuss our theoretical and algorithmic contributions. A short demo of our method for digits recognition will conclude the talk : http://dx.doi.org/10.3103/S1066530717010045


*Bio: Dr. Benjamin Guedj obtained his PhD in mathematics from Université Pierre et Marie Curie in 2013. Since 2014, he is a statistical machine learning researcher at Inria, assigned to the Lille - Nord Europe research center. His recent work address the design, analysis and implementation of statistical learning methods for high dimensional problems. Keywords include (but are not limited to) PAC-Bayesian theory, sparsity, optimisation theory, statistical learning theory, sequential learning, non-negative matrix factorisation, aggregation of estimators and classifiers, MCMC algorithms, concentration inequalities. More info on https://bguedj.github.io*


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