



## MMS 2017 Luminy, December 18-22

In honor of 60<sup>th</sup> birthday of  
Oleg Lepski and Alexandre Tsybakov



Monday, Dec 18	Tuesday, Dec 19	Wednesday, Dec 20	Thursday, Dec 21	Friday, Dec 22
9:00 -9:05 Opening				
9:05-9:40 <b>Marten Wegkamp</b>  Sparse Latent Factor Models with Pure Variables for Overlapping Clustering	9:05-9:40 <b>Quentin Berthet</b>  Link prediction with Matrix Logistic Regression	9:05-9:40 <b>Mariana Pensky</b>  Dynamic Stochastic Block Model	9:05-9:40 <b>Alexander Goldenshluger</b>  Nonparametric density estimation from observations with multiplicative measurement errors	9:05-9:40 <b>Pierre Alquier</b>  Concentration of tempered posteriors and of their variational approximations
9:40-10:15 <b>Vladimir Spokoiny</b>  Large ball probability and applications	9:40-10:15 <b>Guillaume Lecué</b>  Learning from MOM's principles	9:40-10:15 <b>Ildar Ibragimov</b>  Estimation of functions depending on a parameter observed in Gaussian noise	9:40-10:15 <b>Cristina Butucea</b>  Estimation of linear functionals in inverse problems with errors in the operator	9:40-10:15 <b>Harrison Zhou</b>  Computational and Statistical Guarantees of EM for Gaussian Mixtures
10:15-10:50 <b>Axel Munk</b>  Statistical inference for Wasserstein transport	10:15-10:50 <b>Iain Johnstone</b>  Eigenvalues and Variance Components	10:15-10:50 <b>Alexandre Belloni</b>  Subvector Inference in Partially Identified Models with Many Moment Inequalities	10:15-10:50 <b>Stanislav Minsker</b>  Robust modifications of U- statistics and estimation of the covariance structure of heavy- tailed distributions	10:15-10:50 <b>Sara van de Geer</b>  Sharp oracle inequalities for non-convex loss
10:50-11:15 <b>coffee break</b>	10:50-11:15 <b>coffee break</b>	10:50-11:15 <b>coffee break</b>	10:50-11:15 <b>coffee break</b>	10:50-11:15 <b>coffee break</b>
11:15-11:50 <b>Natalia Bochkina</b>  Rates of convergence in semi- parametric problems with heterogeneous variance	11:15-11:50 <b>Richard Nickl</b>  Efficient nonparametric inference for a nonlinear inverse problems with the Schrödinger equation	11:15-11:50 <b>Alexander Rakhlin</b>  Online Prediction: Rademacher Averages via Burkholder's Functions	11:15-11:50 <b>Natalia Stepanova</b>  On application of weighted Kolmogorov-Smirnov statistics to the problems of classification, signal detection, and estimation in sparse models	11:15-11:50 <b>Yuri Golubev</b>  On multi-channel signal detection
11:50-12:25 <b>Angelika Rohde</b>  Locally adaptive confidence bands	11:50-12:25 <b>Vladimir Koltchinskii</b>  Estimation of functionals of high-dimensional covariance	11:50-12:25 <b>Markus Reiss</b>  Adaptivity for partial least squares via early stopping	11:50-12:25 <b>Maxim Raginsky</b>  Compositional properties of statistical decision procedures: an information-theoretic view	11:50-12:25 <b>Pierre Bellec</b>  How to generalize bias and variance to convex regularized estimators?
12:30-14:00 <b>Lunch</b>	12:30-14:00 <b>Lunch</b>	12:30-14:00 <b>Lunch</b>	12:30-14:00 <b>Lunch</b>	12:30-14:00 <b>Lunch</b>

12:30-14:00 Lunch	12:30-14:00 Lunch	12:30-14:00 Lunch	12:30-14:00 Lunch	12:30-14:00 Lunch
14:00-16:00 free time	14:00-16:00 free time	14:00-19:30 free time (football game at 14:30)	14:00-16:00 free time	
16:00-16:35 Anatoli Juditsky Estimate aggregation from indirect observations	16:00-17:00 Philippe Rigollet		16:00-17:00 Marc Hoffmann  Some memories and facts about the work of Oleg Lepski: beyond a "discourse on method"	
16:35-17:10 Nicolas Verzelen Adaptive Estimation of Functionals in the Gaussian vector model	A biased random walk through Sasha Tsybakov's work			
17:10-17:30 coffee break	17:00-17:20 coffee break			
17:30-18:05 Dominique Picard Clustering high dimensional data with sparsity	17:20-17:55 Enno Mammen Statistical inference in sparse high-dimensional nonparametric models			17:20-17:55 Felix Abramovich Sparse logistic regression: model selection, goodness-of-fit and classification
18:05-18:40 Massimiliano Pontil Consistent Multitask Learning with Nonlinear Output Relations	17:55-18:30 Rui Castro Are there needles in a moving haystack? Adaptive sensing for detection of dynamically evolving signals			17:55-18:30 Ekaterina Krymova On estimation of noise variance in high-dimensional linear models
19:30-21:00 Dinner	19:30-21:00 Dinner		19:30-21:00 Dinner	19:30-23:00 Gala Dinner

## Inescapable talks

- V. SPOKOINY **Large ball** *probability and applications*



# Inescapable talks

- V. SPOKOINY **Large ball** *probability and applications*



- G. LECUÉ *Learning from MOM's principles*



# Inescapable talks

- V. SPOKOINY **Large ball** *probability and applications*



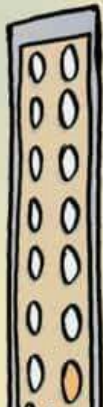
- G. LECUÉ *Learning from MOM's principles*



- P. ALQUIER **Concentration** *of tempered posteriors and of their variational approximations*



How to heal  
my insomnia,  
doctor ?



How to heal  
my insomnia,  
doctor ?

Use Lepski's method to  
reduce Tsybakov's noise



**LEPSKI'S METHOD** AND ADAPTIVE ESTIMATION OF  
NONLINEAR INTEGRAL FUNCTIONALS OF DENSITY

BY RAJARSHI MUKHERJEE<sup>\*,??</sup> ERIC TCHETGEN  
TCHETGEN<sup>†,??</sup> AND JAMES ROBINS<sup>†,??</sup>

---

Optimal rates for first-order stochastic convex optimization  
under **Tsybakov noise** condition

---

**Aaditya Ramdas**

Carnegie Mellon University, 5000 Forbes Ave, Pittsburgh, PA 15213, USA

ARAMDAS@CS.CMU.EDU

**Aarti Singh**

Carnegie Mellon University, 5000 Forbes Ave, Pittsburgh, PA 15213, USA

AARTI@CS.CMU.EDU