

MOMENTS, POSITIVE POLYNOMIALS and OPTIMIZATION

Feb. 29th, March 1st, 7th & 8th, 2016
Amphi Faurre, École polytechnique

an exceptional lecture series given by
Jean-Bernard LASSERRE (LAAS - CNRS)



PGMO and M2 OPTIMISATION

<https://webens.math.u-psud.fr/-optimization>
<http://www.fondation-hadamard.fr/fr/pgmo/presentation-pgmo>

February 29th : 14h00 – 16h00

March 1st : 10h00 – 12h00 and 14h00 – 16h00

March 7th : 14h00 – 16h00

March 8th: 10h00 – 12h00 and 14h00 – 16h00

In the first part, an introduction is provided to the basics of the moment-LP and moment-SOS (sums of squares) approaches for global polynomial optimization problems whose criterion and constraints are described by polynomials (or semi-algebraic functions). In particular, the hierarchy of LP and semidefinite programs to approximate the optimal value of such problems is described.

In the second part, one describes how to use the same methodology to help solve the Generalized Moment Problem (GMP) with polynomial data of which the list of applications is endless (Polynomial Optimization being in fact the simplest instance of the GMP).

This lecture series is organized by The Gaspard Monge Program for Optimization and operations research (PGMO), launched by EDF and the Jacques Hadamard Mathematical Foundation (FMJH)

Lectures are open to researchers and graduate students. Registration is not necessary.

*Directions and campus access :
<http://www.polytechnique.edu/en/maps-and-directions>*

Organizers:

P. Carpentier (ENSTA)

S. Charousset (EDF)

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