**Aims**

Lagrange was born on 25th January 1736 in Turin, where his first seminal results on the equation of the vibrating string and on the calculus of variations were published. Following D'Alembert's suggestion, Frederick II of Prussia offered Lagrange the chair of mathematics at the Berlin Academy, a position which he accepted in 1766. Lagrange published most of his original work during the Berlin years, with contributions ranging from number theory to the theory of algebraic equations, to ordinary differential equations and partial derivatives, to the equations of finite differences. In addition, during the Berlin years Lagrange's contribution included the foundations of analysis, mechanics and hydrodynamics, as well as the solution to important problems in celestial mechanics. He also had an interest in problems related to insurance and annuities. Lagrange moved from Berlin to Paris at the eve of the Revolution, which he witnesses with sympathy. He was one of the first professors to be appointed at the Ecole Normale and the Ecole Polytechnique. His fundamental treatises on the theory of analytic functions, the solution of numerical equations, the calculus of functions and the first two printed editions of his analytical mechanics, all belong to the Paris years. This bicentenary certainly provides an occasion for the Centro De Giorgi to host a meeting of European scholars who either continued or engaged with Lagrange's scientific tradition, especially in Italy, France and Germany.

**Organizing Committee**

Pierre Crépel (Université Lyon 1)
Stefan Hildebrandt (Universität Bonn)
Luigi Pepe (Università di Ferrara)

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# LAGRANGE

## *TWO HUNDRED YEARS LATER*

15-18 April 2013
Aula Dini
Palazzo del Castelletto
Piazza del Castelletto
Scuola Normale Superiore
Pisa

SCUOLA NORMALE SUPERIORE

Centro di Ricerca Matematica Ennio De Giorgi

## MONDAY, APRIL 15

15:15 **VINCENZO ANCONA |** Università di Firenze - Chairman

15:30 **MARIANO GIAQUINTA |** Scuola Normale Superiore
*The early period of the calculus of variations*

16:30 *Coffee break*

17:00 **CARLO VIOLA |** Università di Pisa
*On Lagrange's contributions to the theory of numbers*

## TUESDAY, APRIL 16

9:15 **MARCO ABATE |** Dipartimento di Matematica, Università di Pisa - Chairman

9:30 **STEFAN HILDEBRANDT |** Universität Bonn
*Partial differential equations: Lagrange, Cauchy, Lie*

10:30 *Coffee break*

11:00 **JOSEF BEMELMANS |** Institut für Mathematik, Aachen
*Lagrange's work on hydrodynamics from 1781, and falling bodies in a viscous fluid*

12:00 *Lunch*

15:15 **CIRO CILIBERTO |** Università di Roma Tor Vergata - Chairman

15:30 **JEAN LUC CHABERT |** Université de Picardie
*Lagrange et la résolution des* équations

16:30 *Coffee break*

17:00 **MARIA TERESA BORGATO |** Università di Ferrara
*Equations aux différences finies*

## WEDNESDAY, APRIL 17

9:15 **EDOARDO VESENTINI |** Accademia Nazionale dei Lincei - Chairman

9:30 **JEAN-PIERRE BOURGUIGNON |** Institut des Hautes Études Scientifiques, Bures- sur - Yvette
*The 1808 memoir of Joseph-Louis de Lagrange and the Birth of Symplectic Geometry*

10:30 *Coffee break*

11:00 **IVAR EKELAND |** Université de Picardie
*Lagrange and Carathéodory: the transversality condition at infinity*

12:00 *Lunch*

15:15 **PAOLO FREGUGLIA |** Università dell'Aquila, Dipartimento di Ingegneria e Scienze dell'Informazione e Matematica (DISIM) - Chairman

15:30 **ALAIN ALBOUY |** CNRS, Observatoire de Paris
*Lagrange's invention of the force function*

16:30 *Coffee break*

17:00 **PIERRE CRÉPEL |** Université Lyon 1
*Un disciple oublié de Lagrange: le baron Maurice (1775-1851)*

## THURSDAY, APRIL 18

9:15 **ENRICO GIUSTI |** Università di Firenze - Chairman

9:30 **LUIGI PEPE |** Università di Ferrara
*La théorie des fonctions analytiques de Lagrange à Weierstrass*

10:30 *Coffee break*

11:00 *General discussion*
*Lagrange's contribution to the advancement of mathematics: two centuries of scientific research and educational works*