Conference in Memory of John N. Mather  
October 1–3, 2018  
Taplin Auditorium, Princeton University

**Monday, October 1**

11:00  Welcome & Coffee break  
(Fine Hall 3rd floor Common Room)

11:30–12:30  Charles Fefferman, Princeton University  
*Systems of Equations for $C^m$ Functions*

12:30–2:30  Lunch Break

2:30–3:30  Leonid Polterovich, University of Tel Aviv  
*Persistence barcodes in analysis and geometry*

3:30–4:00  Coffee break (Fine Hall 3rd floor Common Room)

4:00–5:00  Jacques Féjoz, University of Paris, Dauphine  
*From finite-time unbounded singularities, to the question of stability in the N-body problem*

**Tuesday, October 2**

10:00–11:00  Alfonso Sorrentino, University of Rome Tor Vergata  
*Aubry-Mather theory: the principle of least action in dynamics and beyond*

11:00–11:30  Coffee break (Fine Hall 3rd floor Common Room)

11:30–12:30  Vadim Kaloshin, University of Maryland  
*Mather’s program of proving Arnold diffusion for nearly integrable Tonelli Hamiltonians*

12:30–2:30  Lunch Break

2:30–3:30  Albert Fathi, Georgia Institute of Technology  
*Recurrence on abelian cover. Application to closed geodesics in manifolds of negative curvature*

3:30–4:00  Coffee break (Fine Hall 3rd floor Common Room)

4:00–5:00  Dennis Sullivan, Stony Brook University  
*Finite Dimensional Models for Incompressible Fluids in Periodic Three Space*

**Wednesday, October 3**

9:30–10:30  Giovanni Forni, University of Maryland  
*On twisted ergodic integrals*

10:30–11:00  Coffee break (Fine Hall 3rd floor Common Room)

11:00–12:00  James Damon, University of North Carolina  
*John Mather's Pioneering Work in Singularity Theory and Its Enduring Legacy*

12:15–1:15  Mark Goresky, Institute for Advanced Study  
*Mather's work on stratification theory and topological stability*