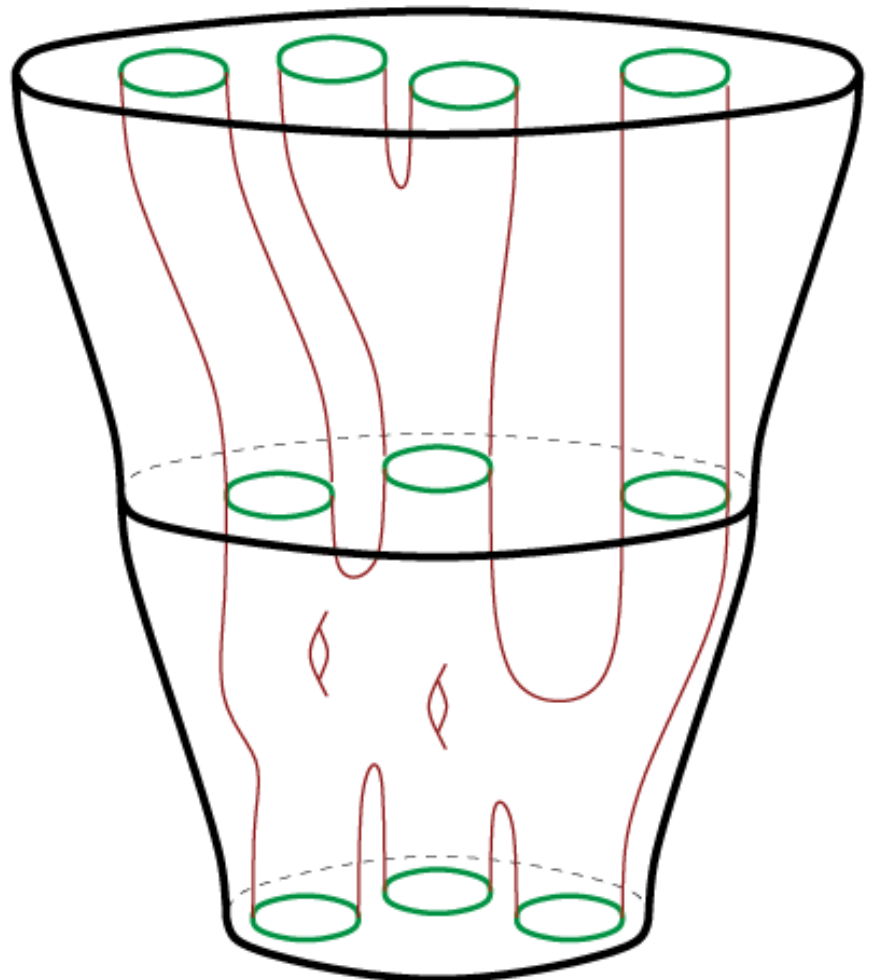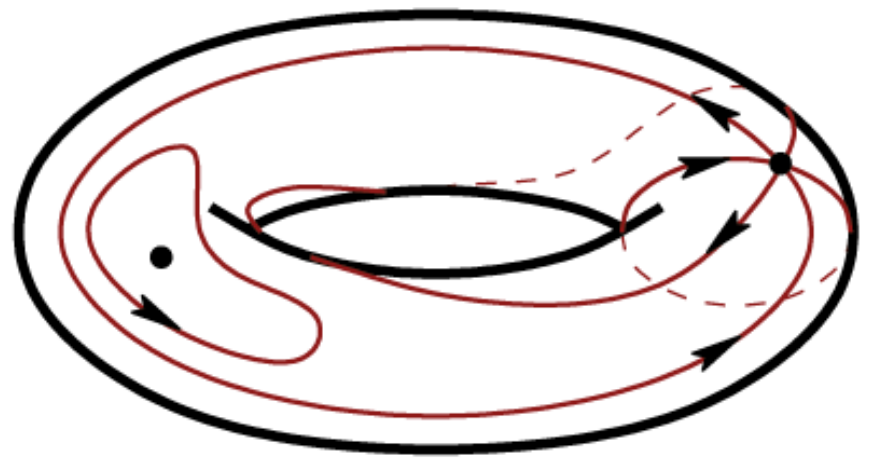# 2015 Adem Lectures

Mohammed Abouzaid

Adem Lectures

Mohammed Abouzaid
Columbia University

April 7,8,9; 2015

Departamento de Matemáticas, Cinvestav

http://www.math.cinvestav.mx/

Titles:

1) Lagrangian Floer cohomology
   April 7, 2015 (4:00 pm)
   Auditorio José Adem

2) Family Floer cohomology
   April 8, 2015 (11:00 am)
   Aula 131 del Departamento de Matemáticas

3) Mirror symmetry and non-commutative geometry)
   April 9, 2015 (11:00 am)
   Aula 131 del Departamento de Matemáticas

Abstracts:

The first lecture will introduce the key players in Kontsevich's homological version of the mirror symmetry conjecture:coherent sheaves on one side and Lagrangian manifolds on the other.

In the second lecture, I will explain the interaction between homological mirror symmetry and the ideas of Strominger-Yau-Zaslow explaining mirror symmetry in terms of dualising torus fibrations. This gives rise to the idea of Family Floer cohomology, wherein one produces coherent sheaves by considering Floer cohomology groups in which Lagrangians vary in families.

In the last lecture, the relevance of these ideas for generalising mirror symmetry beyond the commutative case will be discussed.

This is an ABACUS event.

ABACUS CINVESTAV

Organizers:
Ernesto Lupercio
Isidoro Gitler