Séminaire d'algèbre, topologie et géométrie
Jeudi 13 avril à 14h
Salle de conférences

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Optimal transport between algebraic hypersurfaces

Optimal transport is the general problem of moving one distribution of mass to another one as efficiently as possible, typically keeping track of the ambient geometry. In this seminar I will present recent results on the optimal transport problem between algebraic hypersurfaces of the same degree in complex projective space – integration on an algebraic hypersurface defines a measure on projective space, and all these measures have the same mass if the degree of the hypersurface is fixed. I will discuss how this problem is equivalent to a Riemannian geodesic problem away from the discriminant and connect to the condition number of polynomial system solving. This is joint work with P. Antonini and F. Cavalletti