

Séminaire d'algèbre, topologie et géométrie  
Jeudi 24 janvier à 14h00  
Salle I

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**Titre:** *Simplicial complexes and projective varieties*

**Résumé:** The Stanley-Reisner construction associates to a simplicial complex a projective scheme which “looks like” the complex.

For combinatorial manifolds, if the scheme is smoothable, it will smooth to special algebraic varieties. For example a sphere will in this way correspond to a Calabi-Yau manifold and a torus to an abelian variety. It turns out that interesting triangulations of manifolds yield interesting algebraic geometry via deformations of Stanley-Reisner schemes and I will describe this connection with several examples.