

**UBC Seminar of algebraic groups, Galois  
cohomology and related topics  
Friday, March 27, 10-10:50am, Math Annex 1118.**

**Speaker:** Alexander Duncan (UBC)

**Title:** Finite Groups of Essential Dimension 2 over  $\mathbb{C}$

**Abstract:** I will outline the classification of finite groups of essential dimension 2. We shall see that a finite group  $G$  has essential dimension 2 if and only if it has a versal action on one of the following four surfaces:  $\mathbb{P}^2$ ,  $\mathbb{P}^1 \times \mathbb{P}^1$ , or a Del Pezzo surface of degree 5 or 6.

In the first part of the talk, I will discuss some geometric techniques for studying the essential dimension of finite groups: compressions, versal varieties and the going-down theorem. In the second part, I will describe Manin and Iskovskikh's classification of minimal rational  $G$ -surfaces and its relation to essential dimension.