

Séminaire d'algèbre, géométrie et topologie  
Jeudi 2 juin à 14h  
Salle I

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*On Bogomolov-Miyaoka-Yau type inequalities  
for surfaces in positive characteristic*

Over complex numbers it is well-known that chern numbers of surfaces of general type satisfy the famous Bogomolov-Miyaoka-Yau inequality  $c_1^2 \leq 3c_2$ . It is also well-known that this type of inequality fails to hold in characteristic  $p > 0$ .

I will explain my approach to this problem and in particular provide a class of surfaces for which a weaker inequality holds (namely  $c_1^2 \leq 5c_2$ ). In particular I do not use any lifting hypothesis (such as lifting to  $W_2$ ).

This talk is intended for a wide audience.