

Extrait du
UREM :
Unité de Recherche sur l'Enseignement des Mathématiques

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Le projet Klein

- Extra-muros -



Date de mise en ligne : lundi 5 décembre 2011

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Le professeur Jean-Paul Doignon nous signale le projet Klein lancé par l'International Commission on Mathematical Instruction (ICMI)

Le projet Klein s'inspire du célèbre livre de Felix Klein *Mathématiques élémentaires d'un point de vue avancé*, publié il y a un siècle. Il a pour objectif de stimuler les professeurs de mathématiques pour faire le lien entre les mathématiques qu'ils enseignent, ou sont susceptibles d'enseigner, et le domaine des mathématiques, tout en tenant compte de l'évolution de ce domaine au cours du siècle dernier.

Le projet comportera trois réalisations :

- ▶ un livre publié simultanément en plusieurs langues,
- ▶ un DVD destiné aux enseignants désireux de mettre en oeuvre dans leurs classes quelques idées proposées par le projet,
- ▶ et un site web wiki destiné aux contributeurs potentiels

[The Klein Project](#)

[Site web du projet Klein](#)

[Wiki du projet Klein](#)

[Vignettes du projet Klein](#)

Voici la liste des vignettes proposées à la date du 5 décembre 2011, mais pas encore approuvées : Submitted Vignettes (Not reviewed at the moment)

- ▶ Heron Triangles and Elliptic Curves (Bill McCallum)
 - ▶ Calculators, Power Series and Chebyshev Polynomials (Graeme Cohen)
 - ▶ How Google works (Christiane Rousseau)
 - ▶ Banach fixed point theorem and applications (Christiane Rousseau)
 - ▶ Kepler's conjecture on the packing of spheres (Christiane Rousseau)
 - ▶ Higher Dimensions - pdf (Markus Ruppert & Hans-Georg Weigand)
 - ▶ Higher Dimensions Wiki-Version - Under construction - Will be ready soon (Markus Ruppert & Hans-Georg Weigand)
 - ▶ Tandem rigging for rowing eights and fours (Graeme Cohen)
 - ▶ The concept of dimension (Christiane Rousseau)
 - ▶ The tidiness of elementary mathematics - A Geogebra Applet (Chris Sangwin)
 - ▶ Rolle's theorem : from a simple theorem to an extremely powerful tool (Christiane Rousseau)
 - ▶ Cholera and Voronoi diagrams - A Geogebra Applet (Chris Sangwin)
 - ▶ The shocking behaviour of moving fluids (David Mumford & Christiane Rousseau)
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Extrait de la Newsletter de l'IMU : novembre 2011

3. THE KLEIN PROJECT

Started in 2009, the Klein Project is an IMU/ICMI initiative to provide the means for secondary teachers of senior

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classes to continue to engage their interest in mathematics, in particular to enable them to understand the breath, unity, and evolution of the contemporary research field. It draws inspiration from Felix Klein's books 100 years ago "Elementary mathematics from an advanced viewpoint". The outputs of the Klein Project are to be a book that includes chapters and mathematical "vignettes", a website that can be kept up to date (www.kleinproject.org), and other resources. Klein Project meetings have been held in six different countries so far, and have successfully used the space between school and university mathematics as a place where teachers and mathematicians can engage with each other. So far, except in Brazil, the production of material for the web has been very limited with eight vignettes posted on the website. The Brazilian community has been very active on the project with many vignettes produced, refereed and tested in workshops bringing together mathematicians, mathematics educators and teachers. The Brazilian vignettes will soon be posted on the web. A Klein workshop took place at American Institute of Mathematics on November 7-11. It was the first non Brazilian workshop really dealing with the writing and testing vignettes by a mixed group of mathematicians, mathematics educators and teachers. The workshop was very successful in allowing the writing of several more vignettes to be posted soon and starting a North American Klein community. A blog will be launched in January 2012 (with a link on the present website), where new vignettes will be posted every week or so and vignettes will be commented and criticized. The workshop was the occasion to test a model of "Klein workshop", and the model is to be used by any country willing to organize such a workshop. For information : Bill Barton, barton@math.auckland.ac.nz.