

ConvMathAssist and the Klein Project

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This submission is related to the "Convergence on Mathematics Assistants" Working Group.

The "Klein Project" is a joint initiative of the International Comision for Mathematical Instruction (ICMI), which is the maximum international institution regarding Math Education, and the International Mathematical Union (IMU). The project is inspired by Felix Klein's famous book "Elementary Mathematics from an Advanced Standpoint", published one century ago. It is intended as a stimulus for mathematics teachers, so to help them to make connections between the mathematics they teach, or can be asked to teach, and the field of mathematics, while taking into account the evolution of this field over the last century. The Design Team of the Project is International panel of eight people, chaired by the president of ICMI, prof. Bill Barton (New Zealand) and having Tomás Recio as one of its members.

This last 100 years have witnessed many changes in mathematics that provoked major changes and challenges for school mathematics. The role of mathematics in the education of scientists, economists and engineers seems to have achieved unprecedented societal unanimity. While Klein's writing remains a valuable source insight, it seems timely to revisit this theme by linking the topics and approaches of upper secondary with the field of mathematics. This is an important challenge for Mathematics Education.

I consider that the ConvMathAssist working group topic provides an excellent and remarkable example of the changes and opportunities that the development of XX century mathematics brings into Mathematics Education.

The international Design Team for the project regards the production of a 300-page book written (and disseminated in several languages) to inspire teachers to present to their students a more complete picture of the growing and interconnected field represented by the mathematical sciences in today's world. We expect this will be backed up by web, print, and DVD resources. The project is expected to take about four years.

The Design Team seeks input from all those working in the mathematical sciences, researchers and educators alike. My presentation at the ConvMathAssist working group session will be an opportunity to present the Klein Project, to reflect on ConvMathAssist as a paradigmatic example for this Project and to call for the participation of ConvMathAssist people in its development.

Anyone wishing to be on a mailing list to be kept up to date and receive draft material is invited to send an email in the first instance to the Chair of the Design Team, Bill Barton. A website is in the process of being established.