44. Pedro Quaresma

Intelligent Geometry

The pursue of an "Intelligent Geometry Book" should involve the study of how current developing methodologies and technologies of mathematical (e.g. geometry) knowledge representation, management, and discovery can be incorporated effectively into the education of the future. To succeed in that we must increase the connections between several research communities: mathematical knowledge management; computer theorem proving: education.

Such an Intelligent book for Geometry, should be available in all standard computational platforms and devices, collaborative, adaptive to each and all users' profiles. A "book", i.e. a Cloud platform, capable of formal deductions, with a natural and visual languages interface, supporting a community of users with access to repositories of geometric knowledge and remote computational servers,

To realize such book the aggregation of many expertise is needed in the areas of "Proofs in a Learning Context"; "Interfaces & Searching"; "Tools Integration; "Learning Environments in the Cloud".

We will describe a working plan aiming at that goal.