

# *TGTP* Problem Taxonomy

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## **Abstract**

Thousands of Geometric problems for geometric Theorem Provers (*TGTP*) is a Web-based platform repository of geometric problems being develop to support the testing and evaluation of geometric automated theorem proving systems (GATP).

In the current Information Society the searching mechanisms and the ability of the systems to adapt themselves to the users' needs is increasingly important. Having that in mind the introduction of an adaptive filtering mechanisms in *TGTP* is thought.

By classifying the *TGTP* problems accordingly to several taxonomies it is possible to begin to consider users' profiles and to filter the *TGTP* list of problems by the perceived user's needs. For educational purposes a classification by educational level, refined by the Common Core Standards is presented. For research purposes a taxonomy that addresses automatic proofs, e.g. difficulty levels and provers outputs, is presented.

The introduction of taxonomies in *TGTP* can add a filtering step that, together with the text and geometric search mechanisms, will allow to tailor the *TGTP* usefulness to each user's needs.