

# A DEMO ON USING THE GRÖBNERCOVER ALGORITHM FOR DYNAMIC GEOMETRY TASKS

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**ABSTRACT.** We describe an enhancement of the dynamic geometry environment GeoGebra for automatic computation of algebraic loci and envelopes. Given a GeoGebra construction, the prototype rewrites it as a polynomial system in terms of variables and parameters. The recent GröbnerCover algorithm is used to obtain sound conclusions about the algebraic description of the sought locus/envelope as a locally closed set. The prototype shows the possibility of creating concrete applications of these techniques in general purpose dynamic geometry systems. Moreover, as far as we know, it is the first fully automatic implementation of the GröbnerCover algorithm in this field.

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