On using automated deduction techniques in dynamic geometry environments

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Techniques from automated deduction in geometry have shown their applicability for enhancing dynamic geometry environments. Methods based on Groebner bases or the one proposed by Wu can be efficiently used for proving and discovering in elementary geometry. Nevertheless, their approach is not human-readable and, since they usually need a heavy computational machinery, their integration in standard interactive environments poses additional complexities.

The talk will describe our findings on connecting automatic discovery algorithms with well-known dynamic geometry software. Furthermore, we will discuss new fields of common work for teachers, dynamic geometry developers and computer algebra experts.