## Interpolation for Query Reformulation (Abstract of Invited Talk)

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In this talk I will explain query reformulation problems – given a formula Q and a background theory  $\Sigma$ , the goal is to translate Q, either into another formula or a direct implementation, such that the translation is equivalent to Q according to  $\Sigma$ , and such that the translation satisfies additional interface restrictions – e.g. restrictions on the vocabulary. I will review the approach to solving these problems via interpolation which has been investigated by several groups of researchers over the last few years, presenting the properties of a proof system and interpolation algorithm we might desire for the application to reformulation. I will then give a quick tour of some proof methods and associated interpolation methods proposed in the past, with some tentative remarks about how these stack up against the requirements.

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