STEVENS
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Subgroups of relatively hyperbolic groups of relative dimension 2

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Abstract:
A remarkable result of Gersten states that the class of hyperbolic groups of cohomological dimension 2 is closed under taking finitely presented subgroups. We prove the analogous result for toral relatively hyperbolic groups of dimension 2 with respect to the family of parabolic subgroups. The proof relies on an algebraic approach to relative homological Dehn functions, and a new characterization of relative hyperbolicity. In the talk, I will describe the result and some applications, and briefly describe some of the tools used in the proof.