Interpolation and Fuchsian groups

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We will present results on Nevanlinna-Pick interpolation and Töplitz corona problems for fixed-point algebras of Fuchsian groups. These results allow us to generalize earlier work of Abrahamse, and Ball.

We will outline two approaches to these problems. The first uses a distance formula due, in various forms, to Sarason, Ball, Arveson, and McCullough. The second considers the extremal case of the problem and is based on work of McCullough for planar domains.

Part of this talk is based on joint work with B.D. Wick.