Combination theorems for quasiconvex subgroups of relatively hyperbolic groups

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Abstract. The class of relatively hyperbolic groups was originally introduced by M. Gromov as a generalization of the class of fundamental groups of complete finite-volume manifolds of pinched negative sectional curvature. Alternative but equivalent approaches to relative hyperbolicity were developed by B. Farb and B.H. Bowditch in the late 90s. Recently, D. Osin introduced the notion of relatively quasiconvex subgroup of a relatively hyperbolic group as a generalization of the notion of quasiconvex subgroup in a word-hyperbolic group. In this talk, we present sufficient conditions guaranteeing that the subgroup generated by two quasiconvex subgroups is quasiconvex and isomorphic to the amalgamated product of the pair of subgroups along their common intersection. Some applications are presented.