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Groups with Bowditch boundary a 2-sphere

Bestvina-Mess showed that the duality properties of a group are encoded in any boundary that gives a Z-set compactification; for example, a hyperbolic group with Gromov boundary S^n is a PD$(n+1)$ group. For relatively hyperbolic pairs (G, P), the natural boundary, the Bowditch boundary, does not give a Z-set compactification of G. Nevertheless we show that if the Bowditch boundary of (G, P) is S^2, then (G, P) is a PD(3) pair. This is joint work with Genevieve Walsh.