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Yanni Chen, Don Hadwin, Zhe Liu and Eric Nordgren* (ean@math.unh.edu), Department of Mathematics, Kingsbury Hall, University of New Hampshire, Durham, NH 03824. *A Beurling theorem for generalized Hardy spaces on a multiply connected domain.* Preliminary report.

Beurling's theorem that the closed subspaces of Hardy spaces of the unit disk that are invariant under multiplication by bounded analytic functions all consist of the multiples of an inner function have been generalized in a number of different directions. We establish a version for finitely connected domains and related Hardy and Lebesgue spaces under various norms. (Received August 31, 2015)