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Faisal Kaleem^{*} (kaleem[®]purdue.edu), 131-9 Nimitz Dr, West Lafayette, IN 47906. A general formula for a special class of holomorphic functions from a multiply connected domain to the right half plane. Preliminary report.

We already have a very nice compact formula for all one to one holomorphic functions from a simply connected domain to the right half plane such that a certain chosen point on the boundary is mapped to infinity. This formula involves the Riemann map. I have discovered an analogous formula for all n to 1 holomorphic functions from a multiply connected domain to the right half plane such that one chosen point on each boundary component gets mapped to infinity. This formula involves Alhfors maps which are the analogues of the Riemann map in multiply connected domains. (Received September 23, 2005)