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**Rajan Puri\*** (rpuri7@uncg.edu), 9201 University City Blvd., Charlotte, NC 28223, and **Boris Vainberg**, 9201 University Blvd., Charlotte, NC 28232. *On the discrete spectrum of exterior elliptic problems.*

We consider exterior elliptic problems with coefficients stabilizing at infinity and studied the critical value  $\beta_{cr}$  of the coupling constant (the coefficient at the potential) that separates operators with a discrete spectrum and those without it. In particular, the dependence of  $\beta_{cr}$  on the boundary condition and on the distance between the boundary and the support of the potential is described. The discrete spectrum of a non-symmetric operator with the FKW boundary condition (that appears in diffusion processes with traps) is also investigated. (Received December 19, 2018)