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**George Dassios\*** ([g.dassios@damp.cam.ac.uk](mailto:g.dassios@damp.cam.ac.uk)), DAMTP, University of Cambridge, CB3 0WA Cambridge, England. *On the Global Relation and Moment Theory for the Ellipse.*

The global relation, introduced by Fokas as a spectral condition for boundary value problems in convex polygons, is used to reduce the construction of the solution to Laplace's equation in the interior of an ellipse to a moment problem. Then these moments can be trivially interpreted so that they provide a Dirichlet-Neumann connection for harmonic functions within the ellipse. This way the use of the global relation for a fundamental domain with a curved boundary is demonstrated. (Received September 21, 2005)