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J. S. Brauchart and **D. P. Hardin*** (doug.hardin@vanderbilt.edu), Department of Mathematics, SC1326, Vanderbilt University, Nashville, TN 37072, and **E. B. Saff**. *The next-order term for optimal Riesz and logarithmic asymptotics on the sphere.*

We review known results and present estimates and conjectures for the next-order term in the asymptotics of the optimal logarithmic energy and Riesz s -energy of N points on the d -dimensional unit sphere. The conjectures are based on analytic continuation assumptions (with respect to s) for the coefficients in the asymptotic expansion (as N goes to infinity) of the optimal s -energy. (Received November 28, 2012)