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**Marco Radeschi\*** ([marco.radeschi@gmail.com](mailto:marco.radeschi@gmail.com)), 272 Hurley, Notre Dame, Notre Dame, IN 46617. *Laplacian algebras and singular Riemannian foliations in spheres.*

We exhibit a one-to-one correspondence between spherical manifold submetrics (a concept generalizing closed singular Riemannian foliations in spheres) and a special class of polynomial algebras, namely maximal Laplacian algebras.

We provide some applications, such as solving the Inverse Invariant Theory problem for orthogonal representations of finite groups, and characterizing transnormal systems with closed leaves. (Received August 25, 2019)