

1116-31-572

**Jonas Azzam\*** (jazzam@mat.uab.cat), Universitat Autònoma de Barcelona, Departament de Matemàtiques, Edifici C, Faculta de Ciències, Bellaterra,, Spain, and **Steve Hofmann, José María Martell, Svitlana Mayboroda, Mihalis Mourgoglou, Xavier Tolsa and Alexander Volberg**. *Rectifiability of Harmonic Measure*.

The local F. and M. Riesz theorem of Bishop and Jones says that, for a simply connected planar domain, harmonic measure is absolutely continuous with respect to 1-dimensional Hausdorff measure on the intersection of the boundary with any rectifiable curve. We will survey some recent generalizations of this theorem under certain geometric restrictions on the domain. Surprisingly, the converse holds in even more generality than the original theorem: absolute continuity of harmonic measure on any domain implies rectifiability of the boundary. This is based on joint work with Steve Hofmann, José María Martell, Svitlana Mayboroda, Mihalis Mourgoglou, Xavier Tolsa, and Alexander Volberg. (Received September 07, 2015)