

1064-53-382

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Harmonic measures on laminations by locally symmetric spaces.

Harmonic measures relate both transverse and tangential (geometric and topological) information about a foliation. We will give an algebraic characterization of these measures on compact spaces foliated by locally symmetric spaces, and give an explicit geometric-dynamical description of these measures on an associated frame sub-bundle lamination which relies on recent sharp estimates of the heat kernel. The dynamical interpretation is particularly simple in the split Cartan case. (Received September 14, 2010)