

The Choquet–Deny property for groupoids

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Abstract

A countable discrete group is called Choquet–Deny if, for any irreducible probability measure on the group, the corresponding space of bounded harmonic functions is trivial. Despite many partial results, a characterization of this property in terms of the underlying structure of the group remained an open question for a long time. Only recently, building on the previous work of Jaworski, a complete characterization of Choquet–Deny groups was achieved by Frisch, Hartman, Tamuz, and Ferdowsi. In this talk I will give a brief introduction into Choquet–Deny groups and then sketch how to define a suitable analogue of the Choquet–Deny property within the framework of discrete measured groupoids. Finally, I will explain our primary result, which offers a complete characterization of this property in terms of the isotropy groups and the equivalence relation associated with the given groupoid.

This talk is based on joint work with Tey Berendschot, Soham Chakraborty, Milan Donvil, and Sam Kim.