Representations of weighted homogeneous groupoids

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Abstract:

In this talk I will present results on the representation theory of weighted homogeneous groupoids. This is a family of holomorphic Lie groupoids that are closely related to torus action groupoids, and in many examples, their representations correspond to flat connections with logarithmic singularities along Saito free divisors. As an application of the theory, I will present resonant normal form theorems for flat log connections for several examples of free divisors, as well as results related to the local Riemann-Hilbert problem.