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Weak equivalences between action groupoids

A result of Pronk and Scull states that a weak equivalence between two representable orbifold groupoids is isomorphic to the composition of weak equivalences given by a "quotient functor" and an "inclusion functor". Here, the bicategory within which the result holds is the localisation of representable orbifold groupoids at weak equivalences. This result was proved in two steps: the first shows that the weak equivalence is isomorphic to an equivariant one, and the second is the decomposition into the two special functors. In this talk, we generalise this result to the bicategory of action Lie groupoids for Lie group actions that satisfy any subset of the following properties: free, locally free, transitive, compact, discrete, or proper. This is joint work with Carla Farsi and Laura Scull.