

# Sylvain Lavau. Deformations of singular foliations

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The study of deformations of singular foliations cannot be streamlined as for regular foliations, due to the presence of singularities. However, upon replacing the singular foliation by its corresponding Lie infinity-algebroid, we can construct a DGLA whose Maurer-Cartan elements control the deformations of the given singular foliation. It appears that deforming the singular foliation amounts to deforming the corresponding Lie infinity-structure. We use this approach to study the deformations of several kinds of singular foliations. Work in collaboration with Camille Laurent-Gengoux.