

Remarks and questions about compactness in Jacobi geometry

Daniele Sepe¹, Maria Amelia Salazar²

^{1,2} UFF

Recently Crainic, Fernandes and Martines-Torres introduced Poisson manifolds of compact types that generalise the notions of compactness for foliations, symplectic manifolds and Lie algebras at once. The theory of Poisson manifolds of compact types is connected to many other areas, including multiplicity-free actions on symplectic manifolds, integral affine structures and non-commutative integrable systems. This talk concerns the analogue notion of compactness for Jacobi manifolds. These, on the one hand, generalise Poisson manifolds and, on the other, are to Poisson manifolds as contact manifolds are to their symplectic counterpart. This talk has two aims: first, to motivate why considering compactness in Jacobi geometry is a natural question (even if you are only interested in Poisson manifolds!), and, second, to present a few remarks and some (hopefully interesting!) questions that arise from studying such manifolds.