The Density Property for Calogero–Moser Spaces

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A Calogero–Moser space describes the (completed) phase space of a system of finitely many particles in classical physics. Since the past two decades, these spaces are also an object of ongoing study in pure mathematics. In particular, a Calogero–Moser space of n particles is known to be a smooth complex-affine variety, and to be diffeomorphic to the Hilbert scheme of n points in the affine plane. We establish the density property for the Calogero–Moser spaces and describe their group of holomorphic automorphisms.