

The linear connection approach to Chaplygin nonholonomic systems.

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Chaplygin systems are nonholonomic systems with some extra structure, namely symmetry. In this seminar talk, I will first translate the almost-symplectic formulation of these systems to an approach that makes use of linear connections. Then, I will explain how we can use the symmetry to reduce the system to a quotient space, where it may be easier to solve. Once this is done, we show how one can use the solution of this reduced system to reconstruct the solution of the original Chaplygin system.