

Eden revisited: brackets and quantization in nonholonomic mechanics

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We will describe the nonholonomic bracket defined by R.J. Eden in 1950, in his doctoral thesis supervised by P.A.M. Dirac, and which has remained practically ignored for the last 70 years. We prove that this bracket coincides with those defined more recently using geometric mechanics, both the one defined by van der Schaft and Maschke (generalized by Cantrijn, de León and Martín de Diego) and the one defined in the context of skew-symmetric algebroids (de León, Marrero and Martín de Diego). This new description allows us to study in a simple way subjects such as the Hamilton-Jacobi problem and the quantization of nonholonomic systems, among others.

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Lugar: Aula 8, Facultade de Matemáticas, USC.

Hora: 17:00 h