André Nauts and David Lauvergnat

Louvain-la-Neuve, Belgium, LCP, Orsay

Coordinates and Kinetic Energy Operator

Following the approaches developed in Louvain-la-Neuve, Orsay and Montpellier over the past 40 years, we will present an overview of several aspects dealing with coordinates and kinetic energy operator, KEO:

(i) Why using curvilinear coordinates?

(ii) KEO: general expressions

(iii) KEO: numerical approach

(iv) Polyspherical coordinates: vector parameterization, subsystem, automatic analytical KEO

Our short introductions to these various topics are to be regarded as reminders and starting points for further discussions.