Analysis of lattice Boltzmann schemes
with the Taylor expansion method

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In this communication, we first familiarize the beginner with the underlying algorithms of multirelaxation lattice Boltzmann schemes. Then we present the Taylor expansion method, a general approach for the analysis of arbitrary nonlinear lattice Boltzmann schemes at second order accuracy. After this we introduce the so-called "Berlin algorithm" able to explicit the equivalent partial differential equations of an arbitrary linear lattice Boltzmann scheme at any order.

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