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## Electric conductivity of a hadron gas

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The electric conductivity of a hadron gas is calculated within the hadronic transport approach SMASH (Simulating Many Accelerated Strongly-interacting Hadrons). Microscopic non-equilibrium models are well suited to calculate transport coefficients that synthesize the information on the many-particle dynamics. The temperature dependence of the electric conductivity is extracted using the Green-Kubo formalism for  $T \sim 100 - 200$  MeV. The results for the electric conductivity show good agreement compared to analytic results from literature [Phys.Rev.D 93, 096012 (2016)] for systems with small number of particle species and simple interactions. Furthermore, the influence of a finite lifetime of resonances on the electric conductivity is investigated. After validating the approach results for the electric conductivity of a more realistic hadron gas including more particle species are presented.

### Content type

Theory

### Collaboration

### Centralised submission by Collaboration

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