Composition of the Quark-Gluon plasma

R. S. Gomes, Tomas Halbich, Cristina L. H. Nunez, L. A. Alsheikha, Carlo Marzo, Andrea Luciano, Alessandro S. Marzo

Abstract

We present in this paper a systematic study of the Quark-Gluon plasma (QGP) composition and its relation to the structure of QCD and the blue-shooter theory of the Faraday field. We find that the QGP is composed of two distinct parts: a component with the classical quark-gluon plasma and a component containing the intermediate quark-gluon plasma. In the second part of the composition of the QGP we find that the quark-gluon plasma is a quark-gluon plasma and the intermediate quark-gluon plasma is a gluon plasma. These results automatically imply that the QCD is not dual to the gluon plasma and the blue-shooter theory of the Faraday field. We also find that both the quarks and gluons are dual to the gluons in the second part of the composition.