

Quark-Gluon Plasma Characterisation with Heavy Flavour Probes

November 15-18, 2021

Abstract | Main Topics

Heavy flavor (HF) quarks are excellent probes for the properties of the QGP created in ultra-relativistic heavy-ion collisions. Open HF hadron production allows one to determine the transport coefficients of the QGP. At high transverse momentum, they serve to study parton energy-loss mechanisms in the QGP. Present models, however, differ in many details. In the quarkonia sector, open questions include: up to which temperature can the different quarkonium states survive in a QGP and how do these objects interact with the QGP? How can the recombination of HF quarks/antiquarks from independent hard parton-parton interactions be described in an expanding medium? How constraining is the knowledge of the total HF production crosssection? How do quarkonia interact with the expanding gas of hadrons? Experimentalists and theorists will gather to contribute to answering these questions.

Organizers

Giuseppe **Bruno** – Univ. & INFN Bari; Joerg **Aichelin** – SUBATECH; Ralf **Averbeck** – GSI & EMMI; Fabrizio **Grosa** – INFN Torino

Speakers

A. **Andronic**, University of Münster; R. **Arnaldi**, INFN Torino; B. **Audurier**, CNRS; S. **Bass**, Duke University; A. **Beraudo**, INFN Torino; E. **Bratkovskaya**, GSI; S. **Cao**, Shandong University; Y. **Chen**, UCLA; F. **Colamaria**, INFN Bari; Z. **Conesa del Valle**, CNRS/IN2P3; F. **Damas**, CNRS; X. **Dong**, LBNL; M. **Durham**, LANL; M. **Faggin**, University of Padua; P.B. **Gossiaux**, Subatech; R. **Granier de Cassagnac**, CNRS; M. **He**, Nanjing University of Science and Technology; Q. **Hu**, LLNL; G.M. **Innocenti**, CERN; A. **Kalweit**, CERN; G. **Manca**, University of Cagliari; L. **Micheletti**, INFN Torino; S. **Plumari**, University of Catania; F. **Prino**, INFN Torino; R. **Rapp**, Texas A&M University; A. **Rossi**, INFN Padua; A. **Rothkopf**, University of Stavanger; M.L. **Sambataro**, University of Catania; E. **Scomparin**, Politecnico di Torino; T. **Song**, GSI; J. **Sun**, INFN Cagliari; Z. **Tang**, University of Science and Technology of China; J. **Wang**, MIT; P. **Vander Griend**, TU Munich; X.N. **Wang**, LBNL; J. **Weber**, Humboldt-University of Berlin; W. **Zha**, University of Science and Technology of China.

Director of the ECT*: Professor Gert **Aarts** | The ECT* is part of the Fondazione Bruno Kessler.

The Centre is funded by the Autonomous Province of Trento, funding agencies of EU Member and Associated states, and by INFN-TIFPA and has the support of the Department of Physics of the University of Trento.

Contact: ECT* Secretariat - Villa Tambosi - Strada delle Tabarelle 286 | 38123 Villazzano (Trento) – Italy |
Tel.: +39-0461 314723, E-mail: driessen@ectstar.eu or visit <http://www.ectstar.eu>