

# Frontiers in Nuclear and Hadronic Physics 2020

Feb. 24th-28th

**Registration : 9:00-10:30 at the GGI secretariat**

|               | Monday 24                          | Tuesday 25          | Wednesday 26        | Thursday 27                           | Friday 28                             |
|---------------|------------------------------------|---------------------|---------------------|---------------------------------------|---------------------------------------|
| 9:00 - 11:00  | Registration<br>+ <i>free time</i> | <b>Blaizot 2</b>    | <b>Aarts 3</b>      | <b>Aarts 4</b>                        | <b>Blaizot 4</b>                      |
| 11:00 - 11:15 | <b>Welcome<br/>Address</b>         | <i>Coffee break</i> | <i>Coffee break</i> | <i>Coffee break</i>                   | <i>Coffee break</i>                   |
| 11:15 - 13:15 | <b>Blaizot 1</b>                   | <b>Aarts 2</b>      | <b>Blaizot 3</b>    | <b>Student Seminars<br/>Session 1</b> | <b>Student Seminars<br/>Session 2</b> |
| 13:15 - 15:00 | <i>Lunch</i>                       | <i>Lunch</i>        | <i>Lunch</i>        | <i>Lunch</i>                          | <i>Lunch</i>                          |
| 15:00 - 17:00 | <b>Aarts 1</b>                     | <b>Tutor</b>        | <b>Tutor</b>        | <b>Venugopalan 1</b>                  | <b>Venugopalan 2</b>                  |

**Blaizot**

**Introduction to ultra-relativistic collisions and Hard Probes of the Hot QCD matter**

**Aarts**

**QCD phase diagram and thermodynamics**

**Venugopalan**

**Universal dynamics in high energy QCD: classicalization, scrambling and thermalization**

## March 2nd-6th

|               | Monday 2             | Tuesday 3            | Wednesday 4                           | Thursday 5                            | Friday 6     |
|---------------|----------------------|----------------------|---------------------------------------|---------------------------------------|--------------|
| 9:00 - 10:30  | <i>Free time</i>     | <i>Free time</i>     | <i>Free time</i>                      | <i>Free time</i>                      |              |
| 10:30 - 12:30 | <b>Florkowski 1</b>  | <b>Florkowski 2</b>  | <b>Florkowski 3</b>                   | <b>Florkowski 4</b>                   |              |
| 12:30 - 14:00 | <i>Lunch</i>         | <i>Lunch</i>         | <i>Lunch</i>                          | <i>Lunch</i>                          | <i>Lunch</i> |
| 14:00 - 16:00 | <b>Venugopalan 3</b> | <b>Venugopalan 4</b> | <b>Student Seminars<br/>Session 3</b> | <b>Student Seminars<br/>Session 4</b> |              |
| 16:00 - 16:15 | <i>Coffee break</i>  | <i>Coffee break</i>  | <i>Coffee break</i>                   | <i>Coffee break</i>                   |              |
| 16:15 - 18:15 | <b>Reddy 1</b>       | <b>Reddy 2</b>       | <b>Reddy 3</b>                        | <b>Reddy 4</b>                        |              |

**Venugopalan**    **Universal dynamics in high energy QCD: classicalization, scrambling and thermalization**

**Florkowski**    **Relativistic hydrodynamics for nuclear collisions and recent advances**

**Reddy**    **Dense matter inside neutron stars and its implications for multi-messenger astrophysics**

## Student Seminars

Session 1 - Thursday, February 27th, 11:15 - 13:15

|               |  |
|---------------|--|
| 11:15 - 11:35 | <b>Stefan Stojku</b><br><i>Shape of the quark gluon plasma droplet reflected in the high pt data</i>   |
| 11:35 - 11:55 | <b>Mohsen Haddadi Moghaddam</b><br><i>Accelerating longitudinal expansion of resistive relativistic-magneto-hydrodynamic in heavy ion collisions</i> |
| 11:55 - 12:15 | <b>Junhong Liu</b><br><i>Diffusion of heavy quarks in the early stage of high energy nuclear collisions at RHIC and LHC</i>                          |
| 12:15 - 12:35 | <b>Rajeev Singh</b><br><i>Spin Hydrodynamics for the description of polarization of Lambda hyperons</i>  |
| 12:35 - 12:55 | <b>Michal Barej</b><br><i>Wounded quarks in heavy-ion collisions</i>   |

Session 2 - Friday, February 28th, 11:15 - 13:15

|               |  |
|---------------|--|
| 11:15 - 11:35 | <b>Olga Soloveva</b><br><i>Transport properties of the QGP within the Dynamical Quasi-Particle Model</i>   |
| 11:35 - 11:55 | <b>Farid Salazar Wong</b><br><i>Dijet production in electron-proton (electron-nucleus) collisions from high energy correlators of light-like Wilson lines.</i> |
| 11:55 - 12:15 | <b>Bojana Ilic</b><br><i>Generalization of high-<math>p_T</math> particle's energy loss to a finite value of radiated energy</i>                               |
| 12:15 - 12:35 | <b>Lucia Oliva</b><br><i>The influence of the electromagnetic fields in relativistic proton-nucleus collisions</i>   |
| 12:35 - 12:55 | <b>Maria Lucia Sambaturo</b><br><i>Quark charm scattering process in Quark-Gluon Plasma medium: extension to off-shell dynamics</i>                            |

### Session 3 - Wednesday, March 4th, 14:00 - 16:00

|               |  |
|---------------|--|
| 14:00 - 14:20 | <b>Shahriyar Jafarzade</b><br><i>Phenomenology of the Spin-3 Tensor Mesons</i>   |
| 14:20 - 14:40 | <b>Mario Motta</b><br><i>On the phase structure and equation of state of strongly-interacting matter</i>   |
| 14:40 - 15:00 | <b>Joaquin Grefa</b><br><i>QCD Phase Diagram From Holographic Black Holes</i>  |
| 15:00 - 15:20 | <b>Isabela Maietto Silvério</b><br><i>Femtoscoping of the D meson and nucleon interaction</i>  |
| 15:20 - 15:40 | <b>Blessed Arthur Ngwenya</b><br><i>Fluctuating Open Heavy Flavour Energy Loss in a Strongly Coupled Plasma with Observables from RHIC and the LHC</i> |
| 15:40 - 16:00 | <b>Giuseppe Galesi</b><br><i>Statistical Hadronization of Quark-Gluon Plasma in a kinetic approach to Ultrarelativistic Heavy Ion Collision</i>        |

Session 4 - Thursday, March 5th, 14:00 - 15:20

|               |  |
|---------------|--|
| 14:00 - 14:20 | <b>George Prokhorov</b><br><i>Acceleration in Relativistic Hydrodynamics</i>   |
| 14:20 - 14:40 | <b>Glòria Montaña</b><br><i>Thermal modification of heavy mesons below <math>T_c</math> from an effective hadronic theory</i>                        |
| 14:40 - 15:00 | <b>Caio Vaz Pereira De Brito</b><br><i>Stability of Israel-Stewart theory in the presence of net-charge diffusion</i>                                |
| 15:00 - 15:20 | <b>Gabriel Soares Rocha</b><br><i>On the convergence of the hydrodynamic series from the Boltzmann equation in the relaxation time approximation</i> |

**15:20 - 16:00 Seminar**

**Matteo Buzzegoli**, University of Florence

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