

**Schedule Summer School Theoretical Physics, 22-26 August, 2022; room BBG**

|       | 22/8/2022   | 23/8/2022   | 24/8/2022   | 25/8/2022   | 26/8/2022   |
|-------|---|---|---|---|---|
|       |   | <b>Theory of Quantum Matter</b>   | <b>Theory and Simulations of Soft Matter</b>  | <b>Gravity, particles, and String Theory</b>                        |   |
| 9:00  | 9:00-9:45: Arrival & registration<br><br>9:45: Rembert Duine and Umut Gursoy - Introduction & Welcome | 9:00-12:00:<br>Dirk Schuricht/Lars Fritz - Introduction to Berry Phases and Spin Path Integrals | 9:00-12:00:<br>René van Roij - Introduction to Liquid Crystals                              | 9:00-12:00:<br>Umut Gursoy – Introduction to AdS/CFT                | X   |
| 10:00 | 10:00-13:00:  |   |   |   | X   |
| 11:00 | Stefan Vandoren - Introduction to General Relativity and Black Holes                                  |   |   |   | 11:00-12:00:<br>Final lecture (prof. Gerard 't Hooft)                               |
| 12:00 |   | 12:00-13:00:<br>Lunch   | 12:00-13:00:<br>Lunch   | 12:00-13:00:<br>Lunch   | 12:00-12:30:<br>Closing Remarks (Rembert Duine/Umut Gursoy)<br>12:30-Farewell lunch |
| 13:00 | Lunch   | 13:00-16:00:  | 13:00-16:00:  | 13:00-16:00:  | Departure   |
| 14:00 | 14:00-17:00:<br>Cristiane de Morais Smith - Introduction to Path Integrals                            | Problem session (PhD student assistant, Dirk Schuricht/Lars Fritz                               | Simulation project on liquid Crystals (PhD student assistant, resp. person: René van Roij.) | Problem session (PhD student assistant, resp. person: Umut Gursoy.) |   |
| 15:00 |   |   |   |   |   |
| 16:00 |   | 16:00-17:00:<br>Research talk (CMT)   | 16:00-17:00:<br>Research talk (Soft Matter)   | 16:00-17:00:<br>Research talk (Cosmology)                           |   |
| 17:00 | 17:00: Drinks & Posters (local PhD students, summer school students, all staff.                       |   |   | 18:00-:<br>Summer School dinner (Pancake restaurant Rhijnauwen)     |   |