COURSE ANNOUNCEMENT
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The second half of an introductory graduate course in Statistical and Thermal Physics will start on Wednesday week 2, 2020. The emphasis is on the basic concepts in equilibrium statistical physics and its connection to classical thermodynamics. This second part of the course gives 7.5 ECTS credits. The formal prerequisite to attend the course is the first part of the course, or any equivalent course.

Literature
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The textbook is Fundamentals of Statistical and Thermal Physics, Author: Federick Reif. It is published under several different ISBN numbers including ISBN: 978-1-57766-612-7.

Content
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This second part will cover chapters 9 - 15 in the textbook approximately and thus cover:

- Quantum statistics of ideal gases
- Systems of interacting particles
- Magnetism and low temperatures
- Elementary kinetic theory of transport processes
- Transport theory using the relaxation time approximation
- Near-exact formulation of transport theory
- Irreversible processes and fluctuations

Schedule
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There will be 10 lectures of two hours each. Roughly one per week.

<table>
<thead>
<tr>
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<th>Day</th>
<th>Date</th>
<th>Time</th>
<th>Place</th>
<th>Subject</th>
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Homework
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The mandatory homework problems are chosen to illuminate the theory and to make it easier to understand the theory in itself as well as how it can be applied. There will be roughly four homework problems for each of the chapters 9 - 15.

Examination
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To pass on the second part of the course all mandatory homework problems should be solved correctly before the mandatory oral exam. The dead-line for the oral exam will be early in the summer 2020.

Registration
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Please, send an e-mail to Peter Münger, peter.munger@liu.se, with your name and department to register on the course.

You are most welcome,
Peter Münger