

Summer School I (Sun 23 Feb - Sat 29 Feb 2020)
Topic „General NMR“

Youth hostel “Schloss Windischleuba”, Pestalozziplatz 1, 04603 Windischleuba, Germany

Programme

Before the school starts, please:

- read Malcolm Levitt: “Spin Dynamics” (Wiley) much as possible.
- try to use SIMPSON (<http://inano.au.dk/about/research-centers/nmr/software/simpson/>)

Sunday 23 Feb 2020

- 16.00 Shuttle bus transfer from railway station “Bahnhof Altenburg”
18.00 Shuttle bus transfer from railway station “Bahnhof Altenburg”
Arrival by individual travel, check-in, registration
19.00 Dinner & Get together
20.00-20.30 Opening remarks, Participants introduce each other, About the place
20.30-22.00 **Lecture 01:** Shimon Vega “QM Introduction (I)”

Monday 24 Feb 2020

- 07.30-08.30 Breakfast
09.15-10.30 **Lecture 02:** Shimon Vega “QM Introduction (II)”
10.30-11.00 Coffee/tea
11.00-12.30 **Lecture 03:** Madhu “Relaxation”

12.30-13.00 Lunch
13.00-14.00 Break/visit of the castle/volleyball/garden & walk
14.00-15.30 **Lecture 04:** Shimon Vega “QM Introduction (III)”
15.30-16.00 Coffee/Tea
16.00-17.30 **Lecture 05:** Shimon Vega “QM Introduction (IV)”
18.00-19.00 Dinner
19.00-20.30 **Exercise 1:** Zdeněk Tošner “Starting Simpson & liquid NMR parameters”

Tuesday 25 Feb 2020

- 07.30-08.30 Breakfast
09.00-10.30 **Lecture 06:** Shimon Vega “Spin interactions”
10.30-11.00 Break
11.00-12.30 **Lecture 07:** Madhu “Static solid-state NMR”

12.30-13.00 Lunch
13.00-14.00 Break
14.00-15.30 **Lecture 08:** Shimon Vega/Madhu “Solids: MAS, CP, and Decoupling”
15.30-16.00 Coffee/Tea
16.00-17.30 **Lecture 09:** Gunnar Jeschke “Density operator formalism”

18.00-19.00 Dinner
19.00-20.30 **Exercise 2:** Zdeněk Tošner “Static solid-state NMR”

Wednesday 26 Feb 2020

07.30-08.30 Breakfast
09.00-14.00 Excursion (to Altenburg castle & town)
09.00 Bus leaves from Youth hostel
14.00 Bus returns from Altenburg Theaterplatz

15.30-16.00 Coffee/Tea
16.00-17.30 **Lecture 10:** Gunnar Jeschke “Product operator formalism”

18.00-19.00 Dinner
19.00-20.30 **Exercise 3:** Zdeněk Tošner “MAS, CP and Decoupling”

Thursday 27 Feb 2020

07.30-08.30 Breakfast
09.00-10.30 **Lecture 11:** Madhu “Coherence transfer in liquids”
10.30-11.00 Break
11.00-12.30 **Lecture 12:** Madhu “Multidimensional experiments”

12.30-13.00 Lunch
13.00-14.00 Break
14.00-15.30 **Lecture 13:** Madhu “Recoupling methods in solid-state NMR”
15.30-16.00 Coffee/Tea
16.00-17.30 **Lecture 14:** Gunnar Jeschke “Quadrupolar nuclei”
18.00-19.00 Dinner
19.00-20.30 **Exercise 4:** Zdeněk Tošner “Multi-dimensional experiments and recoupling”

Friday 28 Feb 2020

07.30-08.30 Breakfast
09.00-10.30 **Lecture 15:** Konstantin Ivanov “Hyperpolarization, DNP”
10.30-11.00 Break
11.00-12.30 **Lecture 16:** Konstantin Ivanov “Radical-pair dynamics”

12.30-13.00 Lunch
13.00-14.00 Break
14.00-15.30 **Lecture 17:** Konstantin Ivanov “CIDNP and PHIP”
15.30-16.00 Coffee/Tea
16.00-17.30 **Exercise 5:** Zdeněk Tošner “Quadrupolar nuclei”
Feedback by students, Final remarks

19.00-22.00 Conference Dinner

Saturday 29 Feb 2020

07.00-10.00 Breakfast
10.15 Travelling home (direct bus transfer to Leipzig central station/Hbf)