

LES HOUCHES SCHOOL OF PHYSICS 21 SEP – 2 OCT 2020

«The multiple scattering Green's function approach to electronic structure and spectroscopy calculations»

PRELIMINARY PROGRAMME

- 1. Mathematical scattering theory (D. Yafaev - FR, P. Martin - US)**
- 2. From Green's function to multiple scattering (D. Sébilleau - FR)**
- 3. From multiple scattering to electronic structure (H. Ebert - DE, L. Szunyogh - HU)**
- 4. From multiple scattering to spectroscopies :**
 - 1. Overview (J. Minár - CZ)**
 - 2. XAS, EELS, REXS/RIXS (J. J. Rehr - US)**
 - 3. ARPES (J. Braun - DE)**
 - 4. LEED, PED (D. Sébilleau - FR)**
 - 5. Optical Spectroscopies (H. Ebert - DE, J. Minár - CZ)**
 - 6. XMCD (O. Šipr - CZ)**
 - 7. Corresponding experiments (M. Pedio - IT, A. Di Cicco - IT)**
- 5. Deeper into multiple scattering :**
 - 1. Full potential (K. Hatada - JP)**
 - 2. Relativistic theory (J. Braun - DE, J. Staunton - UK)**
 - 3. Screened KKR (L. Szunyogh - HU)**
 - 4. Multichannel, Bethe-Salpeter (P. Krüger - JP)**
 - 5. Manybody (V. Janiš - CZ, J. Minár - CZ, J. J. Rehr - US, D. Sébilleau - FR)**
 - 6. Magnetism (H. Ebert - DE)**
 - 7. Non equilibrium (S. Lounis - DE)**
 - 8. Superconductivity (B. Ujfalussy - HU)**
 - 9. Transport (L. Szunyogh - HU)**
- 6. Hands-on on computer codes :**
 - 1. SPR-KKR (H. Ebert - DE, J. Minár - CZ)**
 - 2. MsSpec (D. Sébilleau - FR, S. Tricot - FR)**
 - 3. GNXAS (A. Di Cicco - IT)**
 - 4. ASE (not yet known - DK)**

In addition :

- Two after-dinner students' questions sessions**
- Other after-dinner : poster sessions**
- Three short code presentations : FPMS (K. Hatada - JP), FEFF (J. J. Rehr - US), MXAN (M. Benfatto - IT)**
- Last morning : students' short talks**