

Study of the mutual dependence between Lower Hybrid current drive and heavy impurity transport in tokamak plasmas

Harmonia (NCN) – Working Meeting

7/11/2022 – 8/11/2022

Académie Polonaise des Sciences
Centre Scientifique à Paris
74 rue Lauriston
75116 Paris

PROGRAMME

LUNDI 7 NOVEMBRE 10.45 – 16.30

10.45–11.00 **Registration**

11.00-11.10 **Welcoming remarks**

Dr Magdalena Sajdak *Polish Academy of Sciences – Scientific Centre in Paris*

Prof. Marek Scholz *Institute of Nuclear Physics of the Polish Academy of Sciences (online)*

11.10-11.30 **Reminder of the context of the project: main objectives, achievements**

Prof. Marek Scholz *Institute of Nuclear Physics of the Polish Academy of Sciences (online)*

Dr hab. Didier Mazon *The French Alternative Energies and Atomic Energy Commission*

11.30-12.00 **Progresses in LHCD / HXR modeling and open questions**

Dr hab. Yves Peysson *The French Alternative Energies and Atomic Energy Commission*

12.00-12.30 **Discussion**

ALL

12.30-14.00 Lunch break

14.00-14.30 **Atomic form factor and mean excitation energy ab-initio calculations**

Dr hab. Jakub Bielecki *Institute of Nuclear Physics of the Polish Academy of Sciences*

Mgr Jędrzej Walkowiak *Institute of Nuclear Physics of the Polish Academy of Sciences*

- 14.30-15.00 **Incorporating non-Maxwellian distributions in atomic coefficients for plasma emission modeling**
Dr hab. Martin O'Mullane *University of Strathclyde*
- 15.00-15.30 **High-resolution x-ray spectroscopy relevant to the diagnostic of high-temperature tokamak plasmas**
Dr hab. Jacek Rzadkiewicz *National Centre for Nuclear Research (NCBJ)*
- 15.30-16.30 **Discussion**
ALL
- 16.30 **Adjourn**

MARDI 8 NOVEMBRE 09.15 – 13.30

- 09.15-09.30 **Registration**
- 09.30-09.35 **Introduction**
Prof. Marek Scholz *Institute of Nuclear Physics of the Polish Academy of Sciences* (online)
- 09.35-10.05 **SXR measurement and associated inversion: a crucial tool for controlling fusion performances**
Dr hab. Didier Mazon *The French Alternative Energies and Atomic Energy Commission*
- 10.05-10.35 **SXR tomographic reconstruction and W density estimation uncertainties**
Dr Axel Jardin *Institute of Nuclear Physics of the Polish Academy of Sciences*
- 10.35-11.35 **Discussion: combined SXR / HXR analysis, validation of temperature and impurity profiles**
ALL
- 11.35 -12.00 Coffee break
- 12.00-13.00 **Open discussion / round table**
ALL
- 13.00-13.15 **Future work, publications and participation to conferences in 2023/2024**
ALL
- 13.15-13.30 **Conclusions**
Prof. Marek Scholz *Institute of Nuclear Physics of the Polish Academy of Sciences* (online)
Dr hab. Didier Mazon *The French Alternative Energies and Atomic Energy Commission*
- 13.30 **Closing of the meeting**