# Wannier 2022 Developers Meeting

23 - 27 May 2022 An ICTP Hybrid Meeting Trieste, Italy

The Wannier 2022 Developers Meeting gathers the community that sustains various software packages built around the concept of maximally-localised Wannier functions (MLWF), strengthening interactions between the developers and promoting a synergetic research and software ecosystem.

### **Description:**

Several independent packages exploiting MLWFs and the WANNIER90 code exist nowadays, targeting a number of methods and properties such as electron-phonon coupling (EPW), topological properties (Z2Pack, WannierTools), Berry-phase related properties (WannierBerri), tight-binding models (PythTB, TBModels), highthroughput calculations (AiiDA-Wannier90), strongly-correlated materials (TRIQS) and more.

The Wannier 2022 Developers Meeting is open to any developer working on software related to Wannier functions. The event will start with a round of invited technical talks to update all participants on current efforts in the Wannier ecosystem, while the second half of the meeting will be devoted to coding sessions and discussions between the participants. Code developers will have the opportunity to cooperate on integrating and interconnecting different packages into an organic ecosystem, share capabilities and exchange ideas, while contributing to drawing a roadmap for future developments of the software related to Wannier functions. In person participation: As regards the COVID-19 policy, we advise to follow the updated rules available on the ICTP page <u>Access Guidelines for</u> <u>Visitors</u>.

The developers meeting is preceded the week before (16 - 20 May 2022) by the Wannier 2022 Summer School (smr 3705), that consists of lectures and hands-on sessions on a wide range of electronic-structure methods based on Wannier functions. The school targets graduate students, early-career scientists and experienced users. Further information: http://indico.ictp.it/event/9851/ smr3757@ictp.it

### **Directors:**

A. MARRAZZO, University of Trieste, Italy

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- R. MARGINE, Binghamton University, USA
- G. PIZZI, EPFL, Switzerland
- S. TSIRKIN, University of Zurich, Switzerland

# Local Organiser:

N. SERIANI, ICTP, Italy

# How to apply:

Online application:

http://indico.ictp.it/event/9851/

Female scientists are encouraged to apply.

#### Grants:

A limited number of grants are available to support the attendance of selected participants, with priority given to participants from developing countries. There is no registration fee.

# **Deadline:**

# 20 March 2022







Trieste, Ital

International Centre for Theoretical Physics

