NOVEL MATERIALS DISCOVERY

A European Centre of Excellence

# BSC exciting Hackathon

27/05/2023 - 2/06/2023

Barcelona Supercomputing Center

Plaça d'Eusebi Güell, 1-3, 08034 Barcelona

link to map: https://t.ly/f0kn

Meeting room: BSC-PL3-1-16/1

**Local Organizers:**

Julio Gutiérrez Moreno, Rogeli Grima Torres, Isidre Mas Magre (Materials Science, CASE-BSC)

**Co-Organizers:**

Andris Gulans (University of Latvia), Claudia Daxl (Humboldt University of Berlin)

**Instructors:**

Germán Llort, David Bernal, Judit Giménez (Performance Tools, CS-BSC)

Xavier Teruel (Best Practices for Performance and Programmability, CS-BSC)

**BSC exciting Hackathon**

Pedro Martínez Ferrer, Xavier Martorell (Parallel Programming Models, CS-BSC)

Marc Jordà, Antonio Peña (Accelerators and Communications for High Performance Computing, CS-BSC)

**Participants:**

Manoar Hossain (Humboldt University of Berlin)

Ben Alex (Humboldt University of Berlin)

Hannah Kleine (Humboldt University of Berlin)

Elisa Stephan (Humboldt University of Berlin)

Benedikt Maurer (Humboldt University of Berlin)

Sebastian Tillack (Humboldt University of Berlin)

Sven Lubeck (Humboldt University of Berlin)

Davis Zavickis (University of Latvia)

Janis Uzulis (University of Latvia)

Kristians Kacars (University of Latvia)

## Agenda

**Saturday 27-05-2023**

15:00 - 20:00 Arrival and networking event (café/restaurant)

**Sunday 28-05-2023**

12:00 - 18:00 Cultural city visits and networking

**Monday 29-05-2023**

*Instructors: Germán Llort, David Bernal*
*Support team: Rogeli Grima, Isidre Mas*

9:45 - 10:30 Meeting at BSC reception. Welcome & introduction

10:30 - 13:30 Tutorial & hands-on in performance analytics

13:30 - 14:30 Lunch break

14:30 - 17:30 Hands-on session in performance analytics

**Tuesday 30-05-2023**

*Instructors: Xavier Teruel, Pedro Martínez*
*Support team: Rogeli Grima, Isidre Mas*

10:00 - 13:00 Tutorial & hands-on in code parallelization

13:00 - 14:30 Lunch break

14:30 - 17:30 Hands-on session in code parallelization

**Wednesday 31-05-2023**

*Main instructor: Marc Jordà*
*Support team: Rogeli Grima, Isidre Mas*

10:00 - 13:00 Tutorial & hands-on in GPU programming

13:00 - 13:30 NOMAD WP2 meeting (online)

13:30 - 14:30 Lunch break

13:30 - 18:30 Hands-on session in GPU programming

**Thursday 1-06-2023**

*Instructors: Pedro Martínez, Xavier Teruel*
*Support team: Rogeli Grima, Isidre Mas*

10:00 - 13:30 Hands-on session in code parallelization

13:30 - 14:30 Lunch break

13:30 - 18:30 Hands-on session in code parallelization

**Friday 2-06-2023**

*Instructors: Rogeli Grima, Isidre Mas*

10:00 - 13:30 Wrap-up & hands-on session

13:30 - 14:30 Lunch

**Important information**

- The meeting rooms will be available only during the sessions. Access to and circulation through the building is only allowed in the company of a BSC staff member. We will

meet every day at the main entrance, go in a group for lunch, and exit the building together.

- The training HPC accounts will be accessible at any time.
- Eating at the meeting rooms is not allowed.
- All morning and afternoon sessions between Monday and Thursday will have a 15-minute coffee break in the middle.
- We will organize a visit to MareNostrum on Tuesday, at the end of the session.
- The workshop dinner will take place on Thursday evening, all attendees and instructors are welcome to join.

**Lunch breaks (possible options):** Vertex restaurant, Falafel Pedralves, Pizza Altaglio BCN, Heymey, Vegetarium, Frankfurt Pedralbes…

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 951786. 