

# International Conference on Reduced Density Matrix Theory for Quantum Many-Fermion Systems (RDM2022)



15.Jun - 17.Jun 2022

Cod. Z04-22

#### Mod.:

Face-to-face

### **Edition**

2022

### **Activity type**

Workshop

#### **Date**

15.Jun - 17.Jun 2022

# Location

Miramar Palace

#### Languages

English

### **Academic Validity**

30 hours

#### Web

http://rdm2022.dipc.org

# **Organising Committee**









# **Description**

The interdisciplinary RDM2022 brings together experts from the quantum sciences, particularly quantum chemistry and quantum information theory to elaborate on conceptual aspects of interacting quantum many-fermion systems. Topics will explore the theory and applications of both ground and excited states as well as time-dependent processes. The conference comprises the following connected thematic blocks:

- 1. Geometry of RDMs & Concept of fermionic correlation and entanglement.
- 2. 1- and 2-body N-representability Problem.
- 3. 1-RDM and 2-RDM Functional Theories.
- 4. Excited States and Time-Evolution.

#### **ORGANIZING COMMITTEE:**

Prof. Mario Piris (DIPC, UPV/EHU, IKERBASQUE)

Prof. David A. Mazziotti (University of Chicago, USA)

Dr. Christian Schilling (LMU Munich, Germany)

## **Objectives**

The aim of the International Conference on Reduced Density Matrix Theory for Quantum Many-Fermion Systems is to discuss recent ideas and identify open challenges related to the determination of the energy and properties of interacting fermions in terms of reduced density matrices.

# **Course specific contributors**



# Directed by



**Mario Piris Piris Silvera** 

DIPC & UPV/EHU & IKEBASQUE

# **Registration fees**

REGISTRATION	UNTIL 05-06-2022
Attendant	0 EUR

# **Place**

# **Miramar Palace**

 $P^{\underline{o}}$  de Miraconcha nº 48. Donostia / San Sebastián

Gipuzkoa