



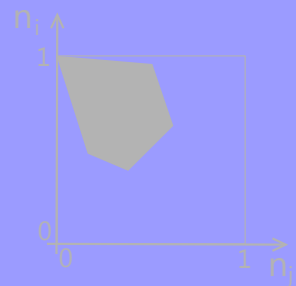
International Workshop on

Reduced Density Matrices in Quantum Physics and Role of Fermionic Exchange Symmetry

University of Oxford

12-15 April 2016

organized by Christian Schilling and Vlatko Vedral



Fermions

The interdisciplinary workshop brings together experts in quantum science, as e.g. quantum information theory, quantum chemistry, solid state physics and mathematical physics. The aim is to explore from a conceptual viewpoint the influence of the fermionic exchange symmetry and its consequences for the reduced 1-and 2-fermion picture. In particular, a better understanding should be developed of how the conflict of energy minimization and antisymmetry of the N-fermion quantum state leads to simplified descriptions of fermionic ground states. The emphasis lies on the four subjects

Fermi level

Angons

*generalized
Pauli constraints*

- (I) particle exchange symmetry
- (II) reduced density matrices
- (III) generalized Pauli constraints
- (IV) degeneracy pressure and numerical methods

invited speakers:

- Murat Altunbulak
- Carlos Benavides-Riveros
- Romit Chakraborty
- Matthias Christandl
- David Gross
- Duncan Haldane
- Nicole Helbig
- Nektarios Lathiotakis
- Jon Magne Leinaas
- David Mazziotti
- Jan Myrheim
- Jiannis Pachos
- Peter Pickl
- Markus Reiher
- Nicolas Regnault
- Ulrich Schollwöck
- Felix Tennie
- Iris Theophilou

DMRG

*Pauli exclusion
principle*

Floquet

homepage & registration: <http://www.physics.ox.ac.uk/confs/pauli2016>
 workshop fee: £50
 venue: University of Oxford, Martin Wood Lecture Theatre

Homotopy

Quasipinning

degeneracy pressure

RDMFT