

SCIENTIFIC PROGRAM

	MONDAY 19th Feb	TUESDAY 20th Feb	WEDNESDAY 21st Feb	THURSDAY 22nd Feb	FRIDAY 23rd Feb
09:30		K. Jansen	C. Edmunds	M. Cea	D. Poilblanc
10:30		A. Crippa	D. Locher	G. Cataldi	F. Di Marcantonio
11:30	break	break	break	break	break
18:30	J.J.Garcia-Ripoll	S. Vallecorsa	G. Sierra	N. Mariella	Discussion
19:30	J.M. Alcaine	S. Zhuk	S. Pradhan	J. Cobos	Discussion
20:30	DINNER	break	break	break	break

Monday 19th February

18:30 Juan Jose Garcia-Ripoll (IFF-CSIC, Madrid) "Qubit interaction engineering and quantum annealing"

19:30 Jesus Matias Alcaine (UPV/EHU, Bilbao) "Symmetry protected gates on superconducting circuits"

20:30 Welcome Dinner

Tuesday 20th February

09:30 Karl Jansen (DESY, Berlin) "Quantum computing the Schwinger model with staggered and Wilson fermions"

10:30 Arianna Crippa (DESY, Berlin) "'2+1-dimensional QED: study of confinement with quantum computing"

18:30 Sofia Vallecorsa (CERN, Geneva) "Opportunities and challenges in Quantum Machine Learning : examples from HEP"

19:30 Sergiy Zhuk (IBM, Dublin) "On function approximation in reproducing kernel Hilbert spaces and beyond"

Wednesday 21st February

09:30 Claire Edmunds (UIBK, Innsbruck) "Simulating a symmetry protected topological phase in a qudit-based trapped ion system"

10:30 David Locher (Aachen Univ, Aachen) "Introduction to fault-tolerant quantum error correction and a measurement-free fault-tolerant QEC scheme"

18:30 German Sierra (IFT-UAM, Madrid) "Spin chains, entanglement, and All That"

19:30 Sunny Pradhan (UPV/EHU, Bilbao) "Shannon Entropy and the XXZ chain"

09:30 Maria Cea (MPQ, Munich) “Tensor Networks: Ground State Exploration and Dynamics in Open Quantum Systems”

10:30 Giovanni Cataldi (Padova Univ., Padova) “(2+1)-D SU(2) Yang-Mills Lattice Gauge Theory at finite density via tensor networks”

18:30 Nicola Mariella (IBM, Dublin) “Fidelities of quantum states”

19:30 Jesus Cobos (UPV/EHU, Bilbao) “Algorithms for ground state preparation”

Friday 23rd February

09:30 Didier Poilblanc, (CNRS and Toulouse Univ., Toulouse) “Quantum state preparation of topological chiral spin liquids via Floquet engineering”

10:30 Francesco Di Marcantonio (UPV/EHU, Bilbao) “Tensor networks for real time dynamics of lattice gauge theories”

18:30 Discussion

19:30 Discussion