

Q DAYS

PROGRAMME SUMMARY

	11 April	12 April
08:30 - 08:50	Welcome	
08:50 - 09:00	Formal Opening	
09:00 - 10:00	Invited Talk	Invited Talk
10:00 - 10:30	Coffee Break	Coffee Break
10:30 - 12:45	Tutorial Session 1	Tutorial Session 3
12:45 - 14:30	Lunch Break	Lunch Break
14:30 - 16:00	Tutorial Session 2	Post-graduate Students Session 1
16:00 - 16:30	Coffee Break	Coffee Break
16:30 - 18:00	Hands-on Session IBM Quantum Experience	Post-graduate Students Session 2

Q DAYS - PROGRAMME DETAILS

	11 April	12 April
08:30 – 08:50	WELCOME	
08:50 – 09:00	FORMAL OPENING	
9:00 – 10:00	Invited Talk Ricardo Ribeiro (CFUM) The quantum paradigm	Invited Talk Rui Soares Barbosa (DCS, Oxford) Quantum vs classical: non-locality, contextuality, and informatics advantage
10:00 – 10:30	Coffee Break	Coffee Break
10:30 – 12:45	Tutorial Session 1 José Espírito Santo (CMAT), Quantum Turing machines Luís Paulo Santos (HASLab), Grover's algorithm Assis Azevedo (CMAT), Shor's algorithm	Tutorial Session 3 José Manuel Valença (HASLab), Post-quantum cryptography Paulo Almeida (CIDMA), A McEliece-like cryptosystem based on convolutional codes Pedro Patrício (CMAT), Quantum error correcting codes
12:45 – 14:30	Lunch Break	Lunch Break
14:30 – 16:00	Tutorial Session 2 <u>Salvatore Cosentino (CMAT), Quantum Information Theory</u> <u>Carlos Fitas (CMAT), Quantum Logic</u>	Post-graduate Students Session 1 Serena di Giorgio (IST), Quantum Markov networks: quantum states recoverability from direct correlations Carlos Tavares (HASLab), Quantum simulation Bruno Murta (INL), Tackling the Many-Body Problem with Noisy, Intermediate-Scale Quantum Computers Carolina Alves (HASLab): QGraphics: quantum searching for ray triangle intersection
16:00 – 16:30	Coffee Break	Coffee Break
16:30 – 18:00	Hands-on Session: IBM Quantum Experience Afonso Rodrigues (HASLab) and Ana Neri (HASLab)	Post-graduate Students Session 2 Michael Oliveira (HASLab): Quantum Bayesian inference Daniel Carvalho (HASLab): Exploring quantamorphisms Vitor Fernandes (HASLab): Integration of quantum processes in cyber-physical systems Sofia Oliveira (HASLab): Flexible molecular alignment