

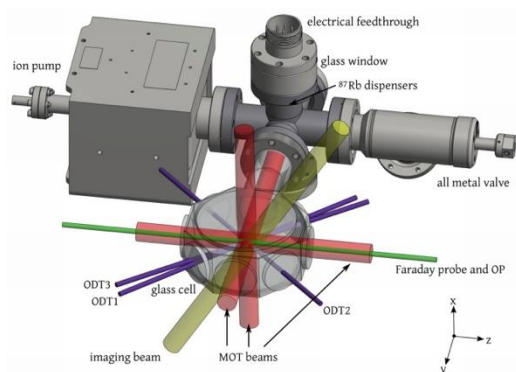
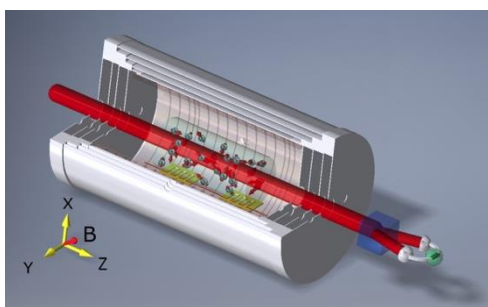
**Research positions (Bachelor thesis, Masters, PhD and Postdoctoral levels): Atomic Quantum Technologies**  
*(Supported by the Quantum Technology Flagship and QuantERA ERA-NET in Quantum Technologies)*

The [Atomic Quantum Optics](#) research group at ICFO, led by **Prof. Dr. Morgan Mitchell**, is looking for well-qualified, highly motivated and dynamic students and post-doctoral researchers for a variety of innovative research projects in Atomic Quantum Technologies. The successful candidates will join a highly diverse team in a friendly and stimulating environment.

The various research efforts within this call employ atoms in different phases, including hot vapours, individually-trapped cold atoms, and ultra-cold quantum gases, as well as squeezed light and entangled photon pairs, to tackle outstanding challenges in quantum sensing, quantum simulation, quantum randomness generation and fundamental quantum physics.

References:

- [Measurement-induced nonlocal entanglement in a hot, strongly-interacting atomic system](#), Jia Kong, Ricardo Jiménez-Martínez, Charikleia Troullinou, Vito Giovanni Lucivero, Morgan W. Mitchell arXiv:1804.07818 (2018)
- [Multi-second magnetic coherence in a single domain spinor Bose–Einstein condensate](#) S. Palacios, S. Coop, P. Gomez, T. Vanderbruggen, Y. N. Martinez de Escobar, M. Jasperse, M. W. Mitchell New J. Phys. **20**, 053008 (2018)
- [Atom-resonant squeezed light from a tunable monolithic ppRKTp parametric amplifier](#) J. A. Zielinska, M. W. Mitchell Opt. Lett. **43**, 643 (2018)
- [Simultaneous tracking of spin angle and amplitude beyond classical limits](#) G. Colangelo, F. Martin Ciurana, L. C. Bianchet, R. J. Sewell, M. W. Mitchell Nature **543**, 525-528 (2017)
- [Generation of fresh and pure random numbers for loophole-free Bell tests](#) C. Abellán, W. Amaya, D. Mitrani, V. Pruneri, M. W. Mitchell Phys. Rev. Lett. **115**, 250403 (2015)



Interested candidates should contact Prof. Dr. Morgan Mitchell ([morgan.mitchell@icfo.eu](mailto:morgan.mitchell@icfo.eu)) for further details.