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Hannes Hübel studied physics at Queen Mary, University of London, and received his MSci degree in 2000. In his PhD thesis, conducted at the same institution, he dealt with the effects of solvent interactions in high pressure experiments on semiconductors and biological samples. Having developed a keen interest for quantum optics during his PhD, he joined in summer 2004 the Quantum Cryptography group at the Quantum Optics, Quantum Nanophysics, Quantum Information group at the University of Vienna. There, he developed a new type of entangled-photon sources for long distance quantum communication in the framework of the Integrated Project SECOQC. During this research, he demonstrated the usability of polarization entanglement even after a 100km transmission in telecom fibers.

In January 2008, he became the leader of the Quantum Cryptography group at the University of Vienna and together with his team successfully achieved the goal of the SECOQC project by providing a fully automated, highly secure quantum key distribution system based on entangled photons.

Aside from bringing experiments on entangled photons from a laboratory environment into real world applications, he also directs other projects on new designs for polarization entangled sources and on more fundamental aspects of the quantum nature of light