Thomas previously received his PhD from the University of Brussels in 2019, under the supervision of Stefano Pironio. He then moved to Canada, where he was a postdoctoral researcher in the groups of Norbert Lütkenhaus (University of Waterloo) and Hoi-Kwong Lo (University of Toronto).

He is interested in all aspects of Quantum Cryptography: from the design of practical implementations using Quantum Optics, to advanced security methods for proving efficient finite-size security. He is interested in both numerical and analytical methods, and has experience with different adversarial models, from Device-Dependent to (semi-)Device-Independent security.

His current research focusses on harnessing ideas from Convex Optimization for proving efficient finite-size security of Quantum Key Distribution

I’m interested in both numerical and analytical methods, and I have experience with different adversarial models, from Device-Dependent to (Semi-)Device-Independent security.

More generally, I’m interested in all aspects Quantum cryptography: from the design of practical implementations using \*quantum optics\* to abstract security methods for proving efficient \*finite-size security\*. I’m interested in both numerical and analytical methods, and I have experience with different adversarial models, from Device-Dependent to (semi-)Device-Independent security.

He is interested in Quantum Cryptography and in how to use ideas from Convex Optimization for proving security, including against finite-size.

His current research interests include Quantum Cryptography and on how to characterize the security based on Convex Optimization.

Post-doctoral researcher working in Quantum Information.

My research focusses on the security of Quantum Cryptography. I’m concerned with techniques that are generally applicable (ie. not restricted to idealized devices) and that are very efficient (

In particular, I address questions such as what is the highest keyrates one can certify for a given protocol,

I’m interested in all aspects of security, from asymptotic to finite-size key rates,

More generally

I’m interested asymptotic key rates and finite-size security rates and implementation loopholes.

My work focusses on the security of practical Quantum Key Distribution, with a particular emphasis on building new methods inspired by the fields of \*Convex Optimization\*, that can be used to compute key rates.

practical Quantum Key Distribution, with a particular emphasis on building new methods inspired by the fields of \*Convex Optimization\*, that can be used to compute key rates.

More generally, I’m interested in all aspects Quantum cryptography: from the design of practical implementations using \*quantum optics\* to abstract security methods for proving efficient \*finite-size security\*. I’m interested in both numerical and analytical methods, and I have experience with different adversarial models, from Device-Dependent to (Semi-)Device-Independent security.

Protocols: Quantum Key Distribution, Random Number Generation, Coin-Flipping

Adversarial models: from protocols with Trusted Devices to (Semi-)Device-Independent protocols

Security: asymptotic/ finite-size

My working focusses on building new tools in for characterizing the security of Quantum Key Distribution. I’m interested in both numerical and analytical methods inspired by the field of Convex Optimization. I have experience in

, as well as other cryptographic protocols. I’m interested in

computing keyrates of protocols for Quantum Key Distribution, inspired by the field of Convex Optimisation.

Questions/requests: feel free to contact me by email.

Questions about my work and on how to implement it: feel free to contact me by email.

My work is relevant to practical experimental implementations of quantum key distribution.