

Call 2019

SECRET

Secure communication based on energy-time/time-bin entanglement

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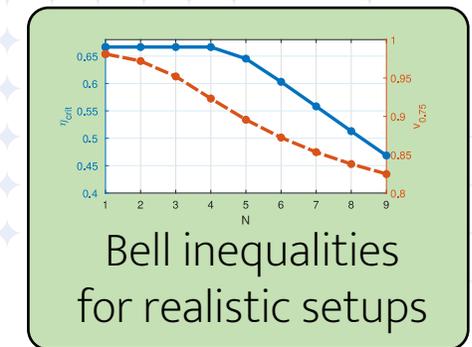
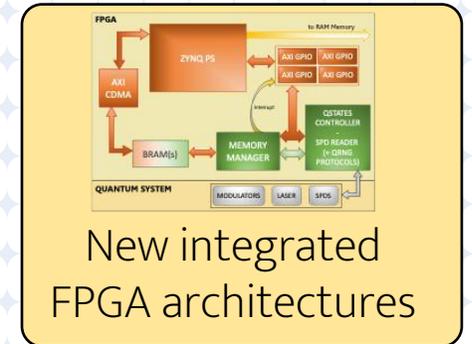
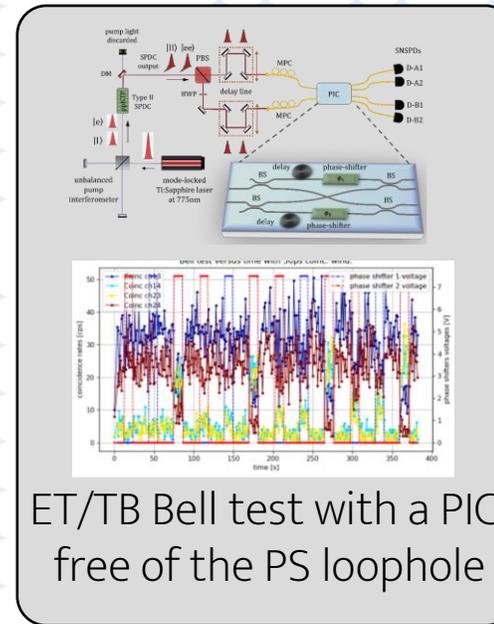
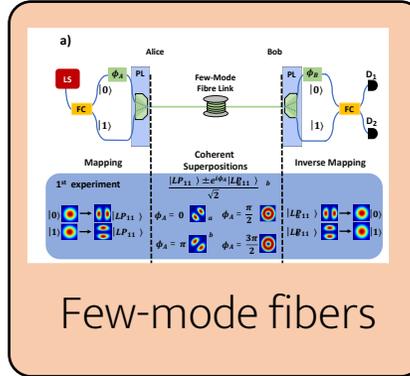
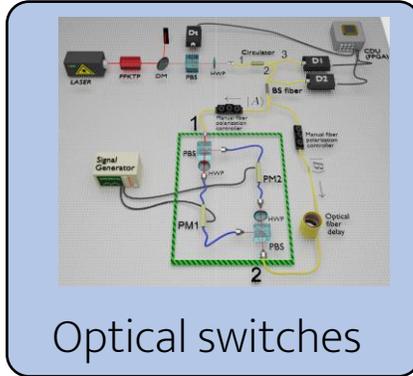


PROJECT PROGRESS (highlights)

CHALLENGE – Improve schemes for secure communication based on energy-time/time-bin entanglement free of the post-selection loophole.

SOLUTION – Optimize optical subsystems (i.e. optical switches, etc...), use new tools (photonic integrated chips, SDM optical fibers), expand the dimensionality...

IMPLEMENTATION –



HURDLES – Covid delays, labs closed
 No cross-partner visits possible for 2020/2021. Technical problems with equipment. More restricted funding than expected.

IMPACT (RRI aspects)

-  **GENDER:** Encouraging the underrepresented gender to apply for positions within the partners.
-  **OPEN SCIENCE:** All our publications are placed on the arXiv. Raw data available upon request.
-  **SCIENCE EDUCATION:** Creation of new courses on quantum technologies for engineering students.
-  **PUBLIC ENGAGEMENT:** Tutorials on quantum technologies and public science talks given in conferences and to the general public.



QUANTERA

ERA-NET Cofund in Quantum Technologies



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