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NextGenerationEU



Ministero
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Italiadomani
PIANO NAZIONALE
DI RIPRESA E RESILIENZA



Development and applications of quantum-resistant encryption algorithms, also in the functional encryption environment

Spoke 1

Task

1.1 Fundamental Research

FP 5

Digital transition through AESA (Active Electronically Scanned Array) radar technology, quantum cryptography and quantum communications

Thematic line

Digital Transition

Workgroup

Antonio Corbo Esposito

Additional human resources

RTDa, Rosa Fera (PhD)

Objective

Quantum computers threaten many of the currently known cryptographic algorithms. Therefore, it is essential to propose new algorithms that are resistant to such attacks. In particular, multivariate cryptography is based on a mathematical problem that is difficult to solve and its study and investigation can lead to a valid encryption and/or digital signature scheme.

Use case /

Field of potential application

/

Starting TRL

1

Final TRL

2

Collaborations

Università degli Studi di Napoli Federico II, Università degli Studi di Trento