The scheme

**Problem**

- Single photon detectors (SPDs) can be controlled by bright light attacks, see [1, 2].
- Many countermeasures suggested must be tested properly. See advanced attack at [3].
- Proper test by quantum hackers’ team takes a lot of time and attention.

**Solution**

- Automated testbench that executes known bright-light attacks and their combinations.
- To apply to SPD CW light at a wide power range with 1-2 dB step (blinding attack).
- To apply to SPD pulse light at a wide energy range with 1-2 dB step (blinding\after-gate attacks).
- To observe SPD countermeasure (if any).

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**The scheme**

- CW Laser
- Signal generator
- Pulse laser
- VOA1
- BS 90:10
- Power meter
- VOA2
- SPD
- Oscilloscope
- Laptop
- User’s interface
- Safety report

**Table**

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**Future plans**

- Machine learning
- Deeper understanding
- Certification

**Certification**


**Machine learning**


**Deeper understanding**

- Intermediate report on SNSDP safety (2021)

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