

Characterization of a Superconducting nanowire single photon detector

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I hereby declare that this thesis was formulated by myself and that no sources or tools other than those cited were used.

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Introduction to SNSPD

Working principle of SNSP

Building set up for Detector Characterization

Characterization of SNSPD

In the literature, four central characteristics for EPD have emerged in order to quantise the quality of detectors. The detector efficiency, the dead count rate, the recovery time and the timing jitter. In general there are more than those like after-pulsing or signal-to-noise ratio however these four are the most common ones.

4.1 Dark Count Rate

Theory

Measurement set up

Results and Discussion

4.2 Efficiency

Theory

Measurement set up

Results and Discussion

4.3 Recovery time

Theory

Measurement set up

Results and Discussion

4.4 Other Characteristics

Useful information

In the appendix you usually include extra information that should be documented in your thesis, but not interrupt the flow.

The \LaTeX WikiBook [1] is a useful source of information on \LaTeX .

Bibliography

- [1] *ℒ_{TeX}*, URL: <https://en.wikibooks.org/wiki/LaTeX> (visited on 01/07/2021) (cit. on p. 9).

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