UNIVERSITÀ DEGLI STUDI DI MILANO

FACOLTÀ DI SCIENZE E TECNOLOGIE

Master degree in Physics

Title

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Quantum computing

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Results

3.1 RB fidelity optimization

disclaimer: this first study was performed using `qibocal v0.1` the code currently uploaded on thi GitHub repository is instead compatible with `qibocal v0.2` Main idea: improve fidelity (which one?) fine tuning the calibration

3.1.1 Randomized Benchmarking

Randomized Benchmarking on `qua`

3.1.2 OPtimization methods

`Optuna`

`Scipy` **methods**

- SQLP ?
- Nelder-Mead → approfondimento

CMA - genetics algorithm

3.2 RX90 calibration

3.3 Flux pulse correction

3.3.1 Cryoscope

Chapter 4

Conclusions

Acknowledgement