



UNIVERSITÀ DEGLI STUDI DI TRENTO

DEPARTMENT OF PHYSICS
DEGREE IN PHYSICS – LAUREA IN FISICA

THESIS

Phase-matching method by temperature control
of partially degenerate Four-Wave Mixing phenomena

Thesis Advisor:
Mattia Mancinelli

Student:
Davide Bazzanella

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Abstract: studying degenerate Four-Wave Mixing phenomena in a rectangular silicon-based waveguide. Analyze its behaviour at different temperatures to maximize phase-match. Developing a project to build an actual prototype.