

Picosecond Jitter of Picosecond Pulses

THESIS

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Author:
Student ID:
Supervisor:
Andrea Maccarinelli
4535286
Supervisor:
Dr. Wolfgang Loeffler
Second corrector:
Dr. Evert van Nieuwenburg

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Andrea Maccarinelli

Huygens-Kamerlingh Onnes Laboratory, Leiden University P.O. Box 9500, 2300 RA Leiden, The Netherlands

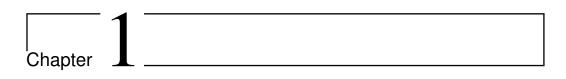
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Abstract

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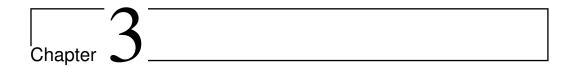


Introduction

 $^{\circ}$ Chapter $^{\circ}$

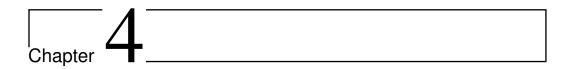
Theory

- 2.1 Introduction to optical jitter
- 2.2 Temporal characteristics of optical pulses
- 2.3 Origins of jitter in experimental systems
- 2.4 Measuring and interpreting optical jitter



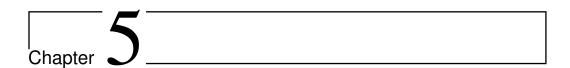
TCSPC-Based Analysis of the EOM-Based Pulsed Source

- 3.1 Experimental setup overview
- 3.2 Data processing pipeline: from timestamps to $g_2(\tau)$
- 3.3 Central peak identification and jitter indicators



System-level jitter analysis using a Ti:Sa laser source

- 4.1 Motivations and experimental setup overview
- 4.2 TCSPC and HBT measurements: a chaotic starting point
- 4.3 Troubleshooting and experimental limitations



Conclusions and outlook