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## TOPOLOGICAL PHASES AND TOPOLOGICAL PHASE TRANSITIONS IN LOW-DIMENSIONAL SYSTEMS

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A dissertation submitted to attain the degree of DOCTOR OF SCIENCES of WROCŁAW UNIVERSITY OF SCIENCE AND TECHNOLOGY





#### ABSTRACT

Abstract

#### ABSTRAKT

Abstrakt

#### ACKNOWLEDGEMENTS

I would like to thank ...

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#### NOTATION

#### FREQUENTLY USED SYMBOLS

- E energy
- m rest mass
- p impulse

#### PHYSICAL CONSTANTS

c speed of light in vacuum,  $c = 299792458 \,\mathrm{m\,s^{-1}}$ 

(CODATA 2014 [codata])

#### INTRODUCTION

### CHAPTER 1

#### SUMMARY



#### APPENDIX

#### **PUBLICATIONS**

Articles in peer-reviewed journals: