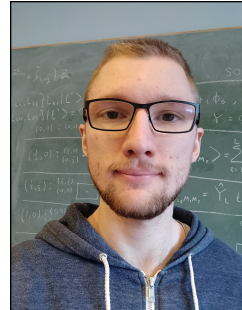# Rasmus Steen Kofoed Nielsen

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Born: June 10, 1996—Roskilde, Denmark
Nationality: Danish

Current occupation

In search of PhD position

Education

2018   *B.Sc.* in Physics: *Quantum Physics* , University of Copenhagen
2020   *M.Sc.* in Physics: *High Energy Theory and Cosmology*, University of Copenhagen

Areas of primary interest

• Quantum Field Theory
• General Relativity
• Differential Geometry
• Quantum Gravity
• String Theory

Subjects of prior and current work

• Black hole solutions in (2+1) dimensional Einstein gravity (*B.Sc. thesis*)
• Point particle solutions in (2+1) dimensional Anti-de Sitter space (*project o.c.s.*)
• Defect conformal field theory in the context of AdS/CFT (*M.Sc. thesis*)

Subject of master thesis

<div style="float:left">2019, 2020</div>

Computation of various *two-point functions* between types of local single-trace scalar operators in different (*less supersymmetric*) defect versions of $\mathcal{N} = 4$ super Yang Mills theory. Both conventional perturbative techniques, as well as techniques related to *integrability* in $\mathcal{N} = 4$, are employed in order to obtain the next to leading order contributions of the two-point functions in question.

Subject of bachelor thesis

<div style="float:left">2018</div>

Features of *black hole solutions in (2+1)* dimensional Einstein gravity with a cosmological constant. We examine both classical features like *mass and spin*, and the semiclassical apperance of a temperature leading to *Hawking radiation*.

Projects outside course scope

<div style="float:left">2018</div>

Reading course on *point particle solutions* in (2+1) dimensional *Anti-de Sitter space*, and their connection to *rotating and non-rotating black hole solutions*.

Programming experience

• Extensive programming experience with:
Mathematica, **Maple**, **MATLAB**, **Python**, **PHP** and **HTML**

• Moderate programming experience with:
JavaScript, **C++**, **C** and **Java**

• Solved 24 Project Euler problems (*programming challenges*).

• Link to my GitHub Page, containing various projects.

Volunteer work

<div style="float:left">2017, 2018, 2019</div>

• Worked for the IT department of the nonprofit organization **Roskilde Festivalen**, by delivering and connecting cash registers to shops on the festival grounds.

Prior work experience

2008, 2009 • Worked as *paperboy* for a local newspaper in the Roskilde area: **Dagbladet Roskilde**.
2021- • Working as *part time math teacher*: **Frederiksberg HF-kursus**.

Language proficiency

- Danish: *native speaker*
- English: *fluent*
- German: *basic knowlegde*
- Japanese: *basic knowlegde*

Hobbies

- Reading books and watching lectures on math and physics
- Doing exercise and weightlifting
- Playing computer games
- Watching films and TV series