

A simulation of the
magnetosphere of a planet
in highly relativistic pulsar
wind

Tanja Kaister

Self Introduction

- Bachelors and Masters at ETH Zürich
- Dark Matter and Exoplanets focused
- Joined the compact object group at CAMK

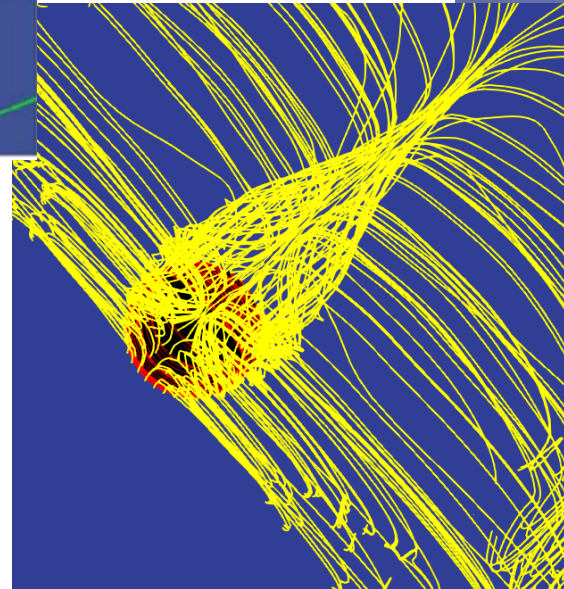
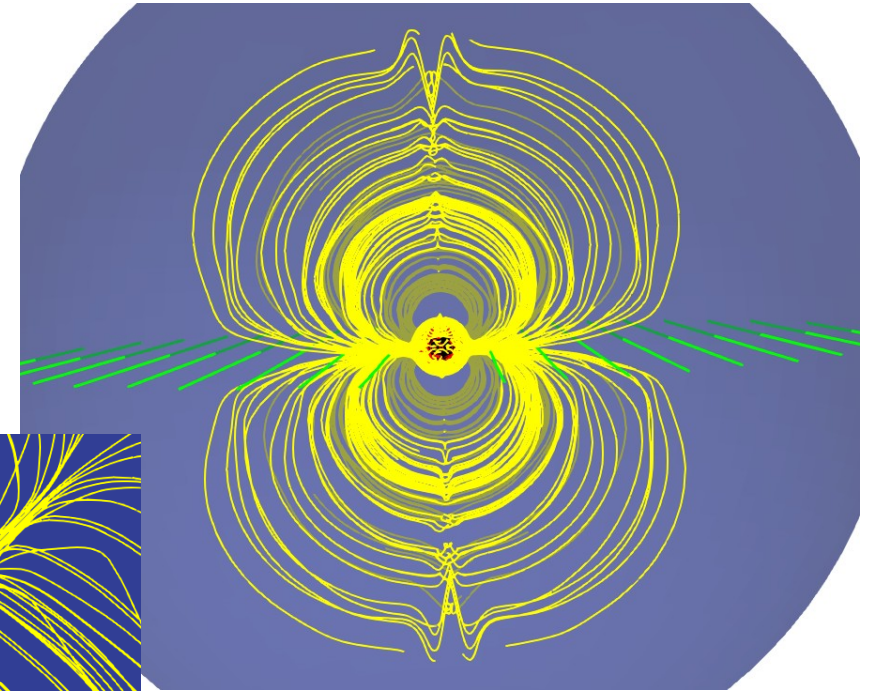
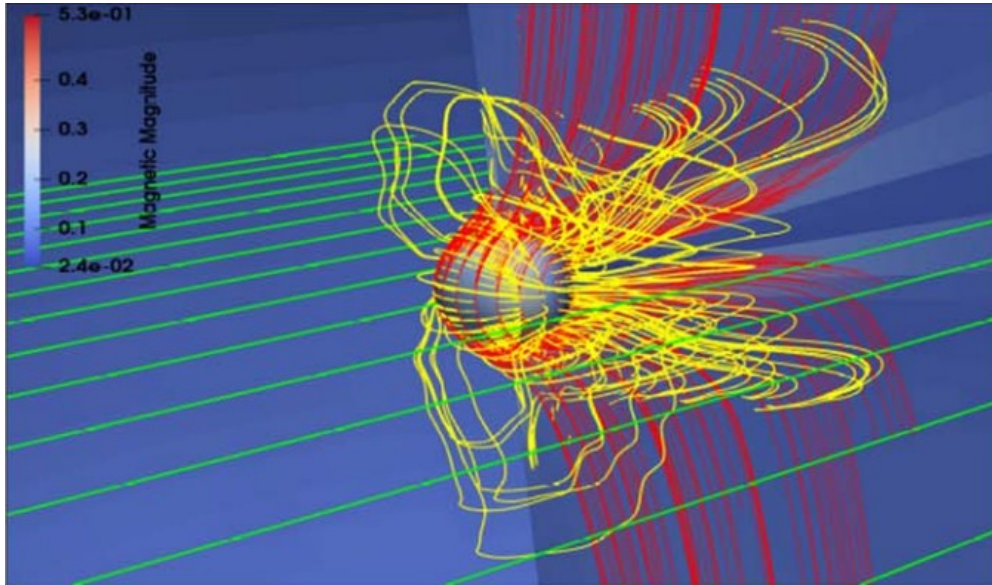
Activities

- Courses taken
 - Introduction to cosmology
 - Accretion processes in astrophysics
 - Numerical simulations of accretion disks
- Ragtime Conference (Dec 2024, Silesian University, Opava)

Project

- Simulating magnetospheric interaction in highly relativistic pulsar wind
- Goal: $v=97\%c$ or more 98.5% c reached
- Realistic pulsar winds are much faster
- This simulation reaches
- Other numerical methods needed to reach realistic pulsar wind speed

Preliminary results



- Planet with incoming pulsar wind

Problem – Spherical coordinates

