

# Modelling uncertainty of the Rhenium-Osmium cosmic clock

Øyvind Brynhildsvoll Svendsen<sup>1</sup>

Supervisor: Sijing Shen<sup>1</sup>

Co-supervisor: Signe Riemer-Sørensen<sup>1</sup>

<sup>1</sup>Institute of Theoretical Astrophysics, University of Oslo

Friday 15th June 2018  
Svein Rosselands hus 209

# Intro

## Theory (10 min)

- ▶ basics of nuclear physics and reactions
- ▶ neutron capture processes
- ▶ Omega
- ▶ Eris

## Method (5 min)

- ▶ fitting
- ▶ uncertainty of yields (from Arnould)
- ▶ "Monte Carlo" style method

## Results (10 min)

- ▶ 187-fraction
- ▶ beta-decay and "removing negative yields"
- ▶ Number of events
- ▶ IMF slope

## Conclusions (5 min)

- ▶ Summary of conclusion chapter (page)