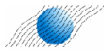


Timo Enqvist
University of Oulu
Oulu Southern institute

lecture course on

Astroparticle physics

15.09.2009 – 15.12.2009



Some information for the essays

Astroparticle physics, autumn 2009

- ▶ The base text 12 pt font \approx 5 pages
- ▶ Figures and Tables (if any) 1–5 pages
- ▶ Total length 5–10 pages

- ▶ Can be written in finnish or in english

- ▶ Can be returned to the lecturer any time
 - ▶ in electronic form (preferably pdf) by email to: timo.enqvist@oulu.fi
 - ▶ the strict dead line is end of April, 2010

Some topics for the essay

Astroparticle physics, autumn 2009

- ▶ Possibilities for the observation of proton decay in the next-generation detectors
- ▶ The solar neutrino problem and its solution (experimental point of view)
- ▶ Cosmic rays at the highest energies
- ▶ What can be learned from the next SN explosion (assuming there are large neutrino detectors world wide)
- ▶ The interior of the Earth and geoneutrinos
- ▶ Liquid scintillation detector purification process/system
- ▶ SN1987A and its neutrinos
- ▶ (Near-)Future double β -decay experiments and their predictions (and/or limitations) on neutrino mass
- ▶ What is dark matter?
- ▶ Challenges in dark matter detection