Data product and data filters



Data Analysis at KASOC



Filtering: High-pass filtering or..





- High-pass and Band-pass Filters
- Removal of phase information from the data, keeping the information on the stellar oscillation power































SoHO / VIRGO (green) data



SoHO / VIRGO (green) data



SoHO / VIRGO (green) data













Data Analysis at KASOC



$$P(\mathbf{v}) = \sum_{i=1}^{K} L(\tau_i, H_i, \mathbf{v}_i) + P_{white} + \sum_{j=1}^{M} \frac{4 \cdot \sigma_j^2 \cdot \tau_j}{1 + (2\pi \cdot \mathbf{v} \cdot \tau_j)^2} + \sum_{i=1}^{N} L(\tau_{spots}, H_i, i \cdot \mathbf{v}_{ROT})$$
High-pass filtered
time series
Power Spectra
Extracted modes
$$f_{1, f_2, f_3, f_{4...}}$$
a, mode lifetime, rot.splt., etc.
Extracted background
Background components
Stellar surface rotation
Mode ID and Freq. Sep.
$$l, n, m$$
Stellar Parameters
B M are 1. Teff X Z g

R, M, age, L, Teff, Y, Z, $\boldsymbol{\alpha}$



Data Analysis Target Selection





Tasks:

Input:

Deliverable Items and Due dates;

Assumption and Comments:

Detailed Description of Tasks and Deliverables:

Staff related to this WP:

Talk to Hans Kjeldsen (<u>hans@phys.au.dk</u>) and/or Danijela Jelicic (dani@phys.au.dk).



Data Analysis at KASOC

