GEO 600 Simulation Workshop

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GEO Simulation Group

- GEO Simulation Group has been started January 2007

- The main activities so far are concentrated around one-day workshops (this is number 5) and the Wiki

- One principle aim is to support the GEO commissioning work

- Further: provide a forum for simulation related activities of all GW based research in and around the GEO research groups

- Even further: collect and provide existing knowledge (from GEO) in this area to the community

The GeoSim Website

- www.sr.bham.ac.uk/dokuwiki/doku.php?id=geosim:home

- A public Wiki with

- Hosts:
  - Meeting dates
  - Talks of past meetings
  - References to GEO
  - Links to simulation
  - Further information
  - ….

Some GEO 600 Simulations

- **OptoCad**
  - 2D CAD program that traces Gaussian beams through an optical layout
- **WaveProp**
  - FFT propagation code
- **LISO**
  - Numerical electronic circuit simulator, specialised tool for building electronic filters
- **Finesse**
  - Numerical Interferometer Simulation, uses Hermite-Gauss modes in the frequency domain

New Activities

- LISA BBO Simulator (Jan Harms)

- Thermal effects with FFT simulations (Jerome Degallaix)

- Non-linear cavity simulator (Nico Latzka)

- Simulating mirrors as elastic deformable objects (Yanbei Chen)

- AdLIGO, Optickle (Kentaro Somiya)

- ….

end