

# Suspension/Isolation Working Group

David Shoemaker - LSC - 16-Mar-00

G000029-00-R

## Activity since last LSC meeting

- development of preliminary seismic isolation requirements and criteria for evaluating design
  - on track for April recommendation of seismic isolation approach
- V. Braginsky's reminder to include thermoelastic losses in test mass thermal noise calculations: significant for Sapphire
  - trades against test mass size, optical parameters under way
- Glasgow meeting on Suspension design and interfaces, December 16-17
- baseline suspension design package from GEO Suspension group
- Very intensive isolation system prototype and model development

# At this meeting

## Today, Thursday

- 14h: Suspension design update
- 14.30: ‘Soft’ isolation design baseline and status
- 16h: ‘Stiff’ isolation design baseline and status

## Friday

- 9h-11.15: Suspension/Isolation prototype test plan overview
  - **LIGO Advanced System Test Interferometer** Technical Advisory Group meeting
- 16h: Thermoelastic and related noise sources
  - joint session with L&O, in Multi-purpose room

## Saturday

- Diagonalization of suspension controllers
- Suspension point Interferometers
- Cryogenics to address thermal noise issues