

Summary of the Detector Characterization Sessions

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LIGO Scientific Collaboration Meeting
LIGO Livingston Observatory
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Good News

Tremendous progress in last year:

- **DMT infrastructure much enhanced (Zweizig, Marka, Sigg, Ito)**
- **Many DMT monitors reaching maturity (Chin, Daw, Ito, Klimenko, Marka, Rakhola, Sutton, Zweizig)**
- **New DMT monitors in the pipeline (Olson, Ottewill, Stubbs, Zotov)**
- **Data run operations much improved, after E7 / E8 / S1 / M1 / M2 / E9 experiences**
- **Calibration & signal injections especially improved**

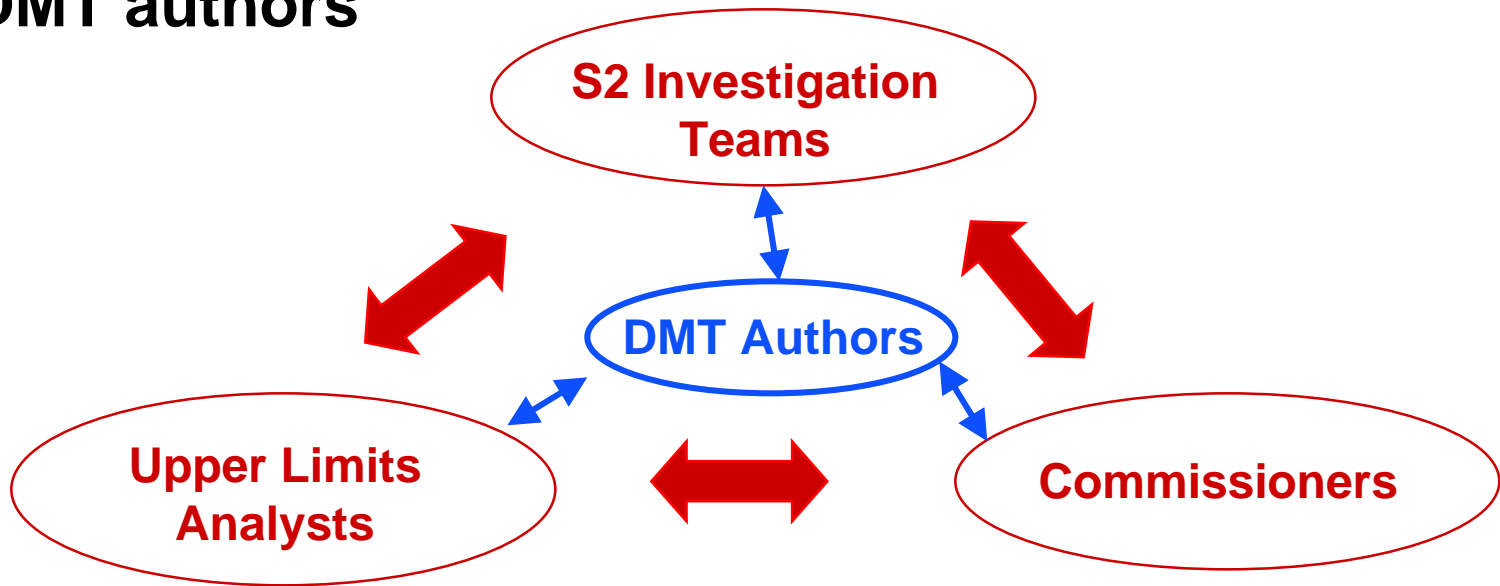
Good News

Tremendous progress in last year:

- » **Online diagnostics for DAQ / CDS state / LDAS**
(Barker, Parameswariah, Shawhan, Mendell, Yakushin)
- » **Coupling of online calibration with astrophysical analysis**
(Brady, J.Creighton, Brown)
- » **Online feedback from astrophysical searches**
(thanks to Duncan, AlanWe, Laura)
- » **Pool of scimon experts expanded dramatically in S2**

Worries

S2 Investigators, upper limits analysts, and commissioners need to do better in **closing the loop** with each other and with DMT authors



Worries

Tremendous tools available, but need manpower to look at and understand outputs, especially artifacts:

Compilation → Cataloguing → Identification

Need more communication among collaborators

Need more collaborators at the sites (IMHO)

→ Collaboration can help commissioners & observatory staff reach design sensitivity sooner

→ Plenty of work to do → **Big scientific payoff !**

Worries

Sustained, continuous data-taking in the future:

- Need ongoing characterization and upper limits analysis,
- Need more automation
- Need scientists looking at results quickly

- Scimon shift staffing will be a challenge
- Must be creative, but realistic about unstable IFO's

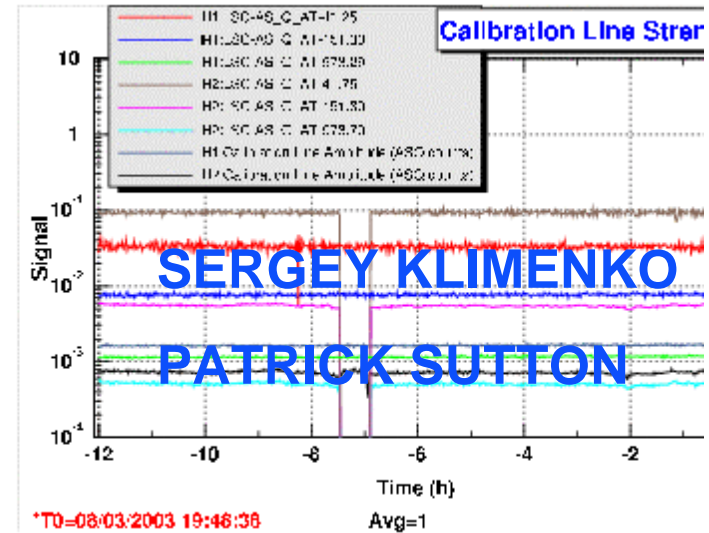
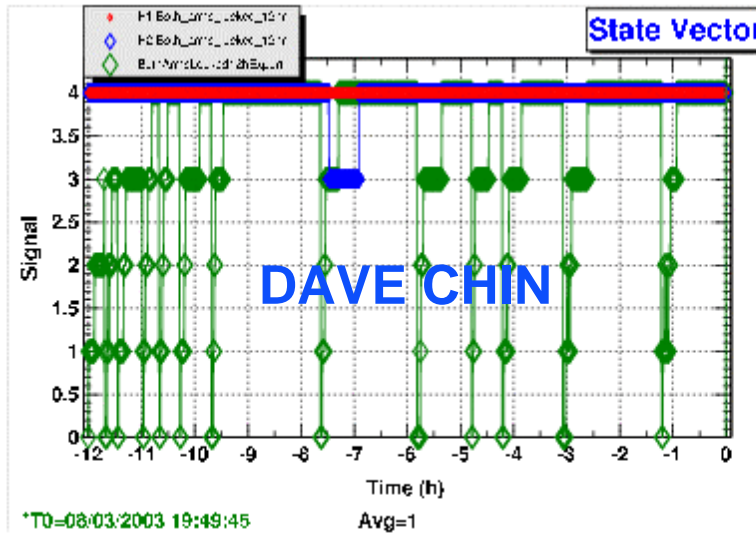
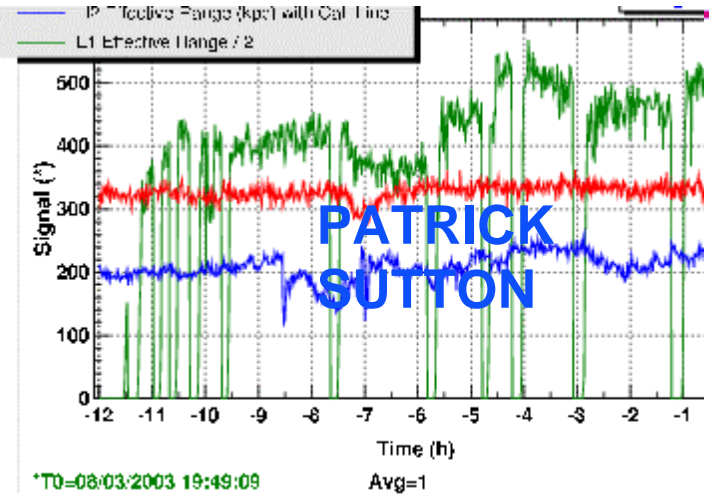
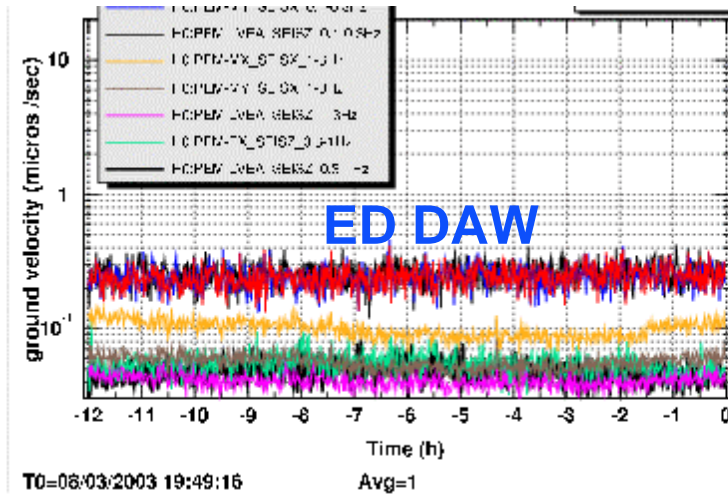
Presentations in DC Sessions

Lots of interesting talks!

**Can't do justice to all of these (38!)
in this brief summary**

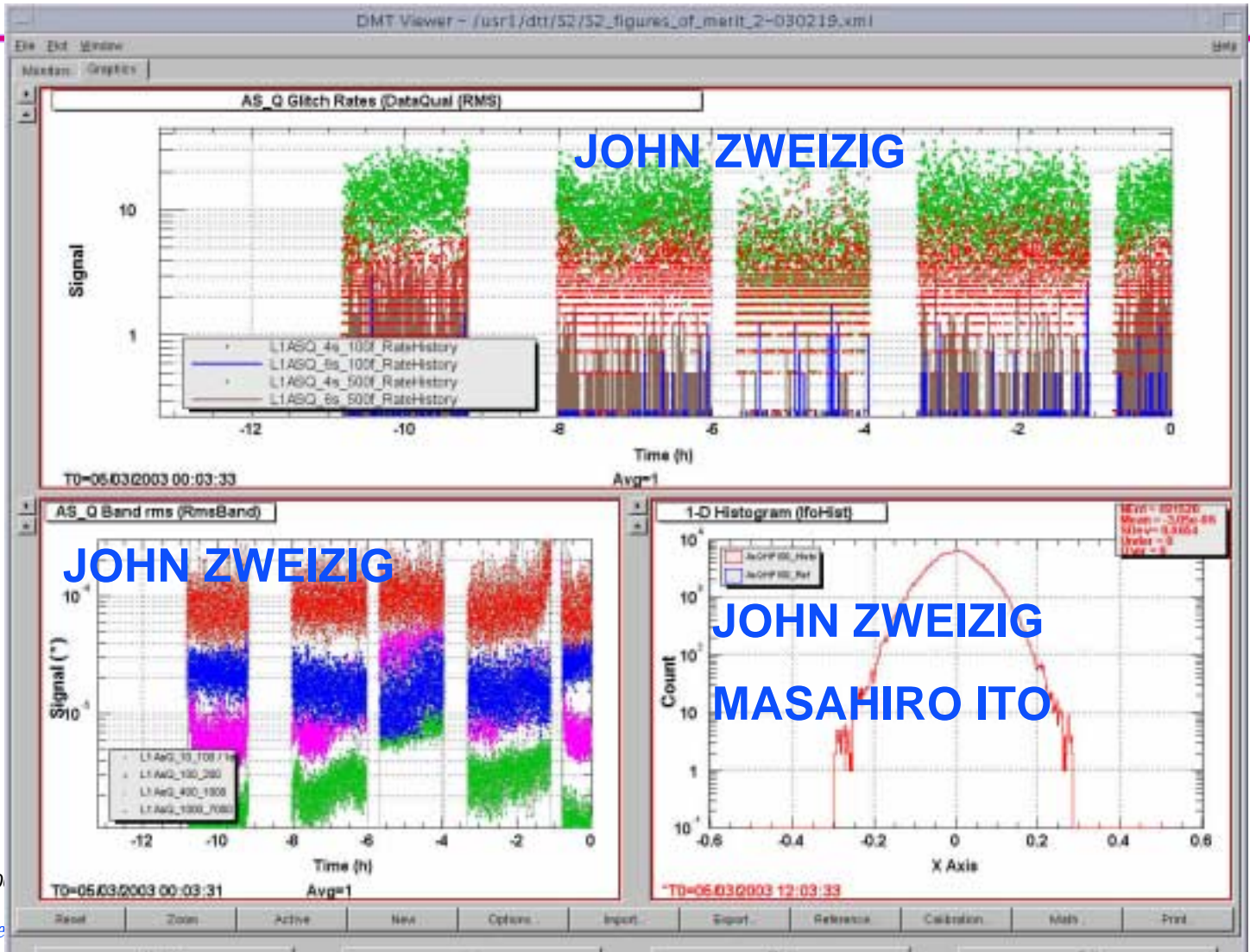
Agenda

The authors who brought you the DMT Figures of Merit





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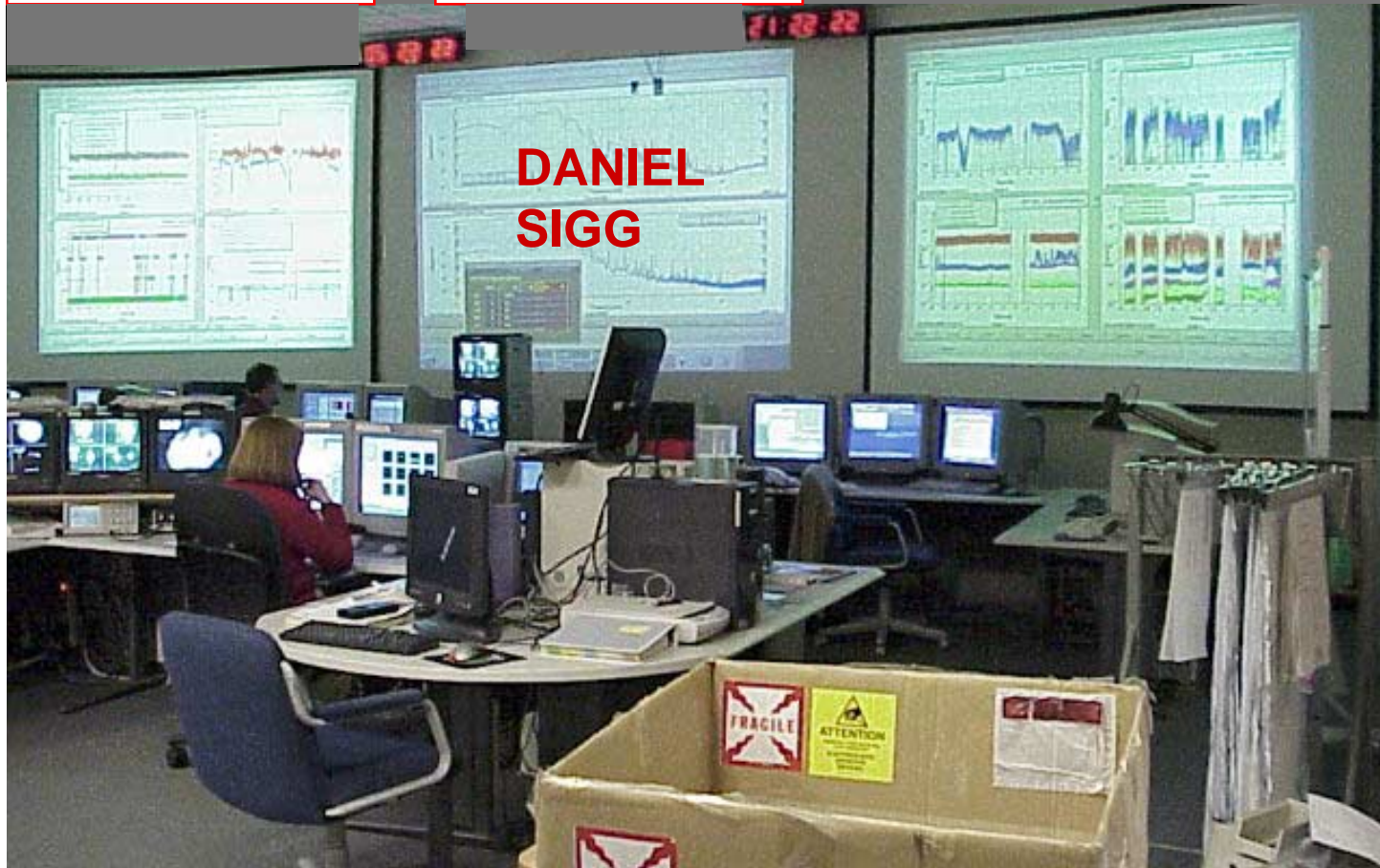
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Detector Character

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