

DNA group

E. Cuoco, I. Fiori, B. Swinkels (part time)

A. Cesarini (stage student)

M. Drago (Padova-co-funded postdoc)

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DNA activities: Data analysis and tools (mainly Elena)

- NMAPI-DNMAPI (in collaboration with A. Colla and G. Hemming)
- WDF (transient signal detector)
- NoEMI (in collaboration with A. Colla and roma group)
- Non linear Analysis(in collaboration with A. Cesarini and M. Drago)
- Noise study group coordination
- Contribution to VDAQ group (Bas)



Environmental monitoring (mainly Irene with Bas contribution)

- **Commitment in various AdV tasks (IME, VAC e INJ):** works in progress: - help in design study of new INJ/DET laboratories for improved acoustic isolation (meetings with Techne', revision of preliminary project) - perform support measurements to finalize choice of new HVAC machines (i.e. check inverter noise compatibility) - check noise emissions of VAC component (new rack power supply just arrived, magnetic emission from VAC racks communication modules) - INJ: evaluate noise emission of beamdump chillers, eventually reduce them
- **Environmental noise sensors:** collaboration for sensors choice and location (with Rosario/Napoli, SLC and DET groups, in progress); improvement of probe inventory (with Gary, next future)
- **Noise climate:** -evaluate noise impact at EGO of proposed projects in the territory (in progress: measurements at CAVA) - study of noise from FI-PI-LI bridges (with A.Cesarini, Bas) - keep running "minimal" building environmental noise monitor (i.e. evaluate impact of new scaffolding)
- **Provide noise projections**



To be completed in this year

Data analysis and tools

A complete setup for testing D-NM(API) framework

Work on non linear analysis with A. Cesarini (his stage ends on December 22th)

Bas's brute force veto test on VSR2 data and LIGO S6 data

Environmental monitoring

Environmental sensors census (Irene with Napoli group)

Write a Virgo note on Magnetic noise (Bas)

Data Analysis and Tools

Support for development and tests for triggers database,

NoEMi database, and D-NMAPI developing

Criticality:

The support we had it is not sufficient. Things should go better in the next months. We should ask for a clear percentage of Gary on this item.

Enviromental noise

Criticality:

Noise Hunting: a permanent partial support (A. Magazzu'?) and electronic technician (we do not have anymore F. Paoletti working with Irene)

Hardware inventory for environmental sensors (need support for web interface and data insertion)

Data analysis and tools

Integration of Sannio University group in noise study group and starting activity on non linear analysis

(should be defined in coordination with DAC next week)

Environmental monitoring

- statistical study of environmental noise characteristics at the site (proposed subject for EGO stage student, if not will do ourself)
- continue with test emission of new components (VAC, INJ) study noise reduction strategies.
- continue controlling INJ/DET bal and HVAC infrastructure works, measurement of noise impact of new HVAC, noise isolation performance new labs (collaborate/supervise), acoustic treatment of new electronics room

Distributed-NMAPI

