



ASPERA Common Call

ET R&D

Networking and R&D for the Einstein Telescope



Meeting Minutes

WP1	WP2	WP3	WP4	MC	GM	Other
					X	

Title of the Meeting:	Third general meeting, Telecon,
hyperlink:	
Date:	17/05/2013
Location (or phone)	phone

Participants

01	Harald Lück (author of the notes)	02	Sergei Popov
03	Sergey Vyatchanin	04	Stuart Reid
05	Ian Martin	06	Tomasz Bulik
07	Sheila Rowan	08	Michele Punturo
09	Sathyaprakash	10	Jo v.d. Brand
11	Stuart Reid	12	
13	Ronny Nawrodt (intermittedly)	14	
15		16	
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19		20	

Agenda

- 1) status of the working groups
- 2) status of the MOU
- 3) ET R&D website
- 4) AOB

1) status of the individual working groups

Working group 1:

Sathyaprakash, the leader of working group 1, reported that currently two programmes are being started:

- test of GR: it will be tested if the Einstein telescope can distinguish different models of black hole ring downs. This is done in collaboration with the NIKHEF group, led by Chris v.d. Broek. Tania Regimbau, leading the ET mock data challenge, is also interested in joining this effort.
- Measuring all cosmological parameters: Tania has got a Ph.D. student who is involved in these studies. A Galaxy catalogue reaching out to $z=2$ will be used to create population models and it will be tested whether it can be recovered from the simulated signals. So far a catalogue reaching up to 200Mpc has been created based on the Sloan digital sky survey. This catalogue will be extended to 20 Gpc and used for the mock data challenge.

Working group 2: Jo van den Brand, the leader of working group 2, reported that work in this working group is just being started and the first task is to get the work organised and getting everyone up-to-date. Sites to be studied are in Spain, Hungary, Sardinia, Finland. Jo is in contact with Istvan. Contact to the Baksan Neutrino Observatory still has to be established. The gravity gradient noise investigation results so far suggests that an array of multiple sensors per site is needed. NIKHEF has built the first 30 sensor network communicating to each other and storing data. These are low-cost (ca. 100€ each), 1-D Geophone based sensors.

Where ever possible to be measurements will be performed at varying depths. In case of horizontal tunnels only be measurements will be distributed over the length of the tunnel. In addition a network of sensors (on the order of 50) will be distributed on the surface. The seismic measurements will be continued for six months. The working group plans will be presented next week at the Elba workshop. Tomek reported that the Polish side can offer engineering manpower and equipment.

Working group 3: Ronny Nawrodt was a visiting Rome and had had technical connection difficulties. Ian Martin reported that working group 3 had the first meeting a few weeks ago. Regular teleconferences will be held every month.

The Glaswegian group is currently setting up some birefringence measurements and will soon be buying equipment for absorption measurements. Hannover is preparing sensitive birefringence measurements in a monolithic silicon cavity. Sergei reported that work in Russia is about to start and the first equipment will be purchased soon. Michael Gorodetsky's group is also just starting experimental investigations to measure the absorption in micro-Whispering Gallery mode resonators.

Working group 4: Andreas Freise was unable to join today's telecom. Sergey Vyatchanin reported that the theoretical work on the investigation of parametric instabilities is also just starting.

2) status of the memorandum of understanding

I sent out link to a draft version of a memorandum of understanding to all full participants two weeks ago. In order to make sure that everyone receives it, I will attach it to the e-mail I send these minutes with.

There has been no feedback yet. We should try to get through this procedure without causing too much work and delay. The basic reason for this memorandum of understanding is to have some foundation on which we all agree to perform the project. Basically this means that we all agree on the work to be done and how it is to be distributed, that we all share new knowledge gained and mutually give access to knowledge that we already have, which is required to perform the project and duty fully report on progress and status and disseminate our results.

We will check if the associated partners find it appropriate to sign the memorandum of understanding or whether it will ease the process if they sign a letter of interest.

3) ET R&D website:

the ET R&D website will be hosted by EGO like the Einstein telescope and the ELITES websites. At the Elba meeting Michele and Harald will talk about the necessities, make a wish list and pass it on to the EGO

computing people. In discussion with the EGO computing people we will also find out about the best options for a document codifier.

The next teleconference meeting will be held on June 14.