

Minutes of the first Adv squeezing meeting 17-6-2014 4:00 PM CET

Connected via Seevogh:

Valeria Sequino, Matteo Leonardi, Jean Pierre Zendri, Jerome Degallix, Sheon Chua, Luca Naticchioni, Alessio Rocchi, Enrico Calloni, Giovanni Losurdo, Fabrizio Baroni, Fausto Acernese, Fulvio Ricci, .....(few other names missed)

Fulvio recalled that the main target of the Adv-squeez working group (WG) is the release of a TDR before the end of 2014.

We start from the skeleton of the proposal presented during the squeezing workshop.

Jean-Pierre shows of the TDR index proposed and elaborated by Matteo Leonardi and Valeria Sequino.

#### 1. Introduction

- experimental requirements and sensitivity enhancement

Jean Pierre point out that, in order to compute reliable sensitivity curves including the sensitivity enhancement due to the squeezing, we need a new Virgo version of the GWINC This is already available in the LIGO case and Michele was able to provide a link where this software can be downloaded.

Jean-Pierre will send this information to the interested people

Enrico e Sheon are volunteers for analyzing the software, and to start thinking how adapt it to the VIRGO case. Giovanni and Fulvio recommend to pay attention on the compatibility with the present version of the AdV GWINC and keep Michele in the action loop.

#### 2. Experimental overview

This section should start from a synthetic review of the current technology and cite some perspectives. A summary of the TDR outcome will be included here.

#### 3. Second Harmonic production:

These are the volunteers for writing the section to be discussed during the next meeting

Marina De Laurentis, Sheon Chua, Jean-Pierre Zendri.....

#### 4.OPO

Volunteers for writing this section

Valeria Sequino, Sheon Chua, Alessio Rocchi.....

#### 5.Homodyne detection

Volunteers for writing this section

Luca Naticchioni, Matina De Laurentis, Sheon Chua.....

#### 6. Electronic and control of the benches

Volunteers for writing the section

Matteo Leonardi, JeanPierre Zendri, Fabrizio Barone,.....

#### 7. Integration and matching with the ITF

Missed Volunteers !!!!!

Fulvio: we need to involve in the discussion and the preparation of this part experts of the AdV detection bench and of the optics group of EGO

Sheon remark: in this skeleton the frequency dependent scheme is absent

Fulvio: we need to add a dedicated section

#### 8. Filter cavities

Alessio: this part is important and it requires a deep R&D study.

Fulvio: we will discuss how to proceed next time, once other Virgo groups will be present

Next meeting is scheduled for  
Tuesday 24th of June at 4:00 PM CET

It will be devoted also to discuss and propose to the VSC at least one name for chairing the Adv-squeez WG.

The meeting is closed at ~ 5:25 PM