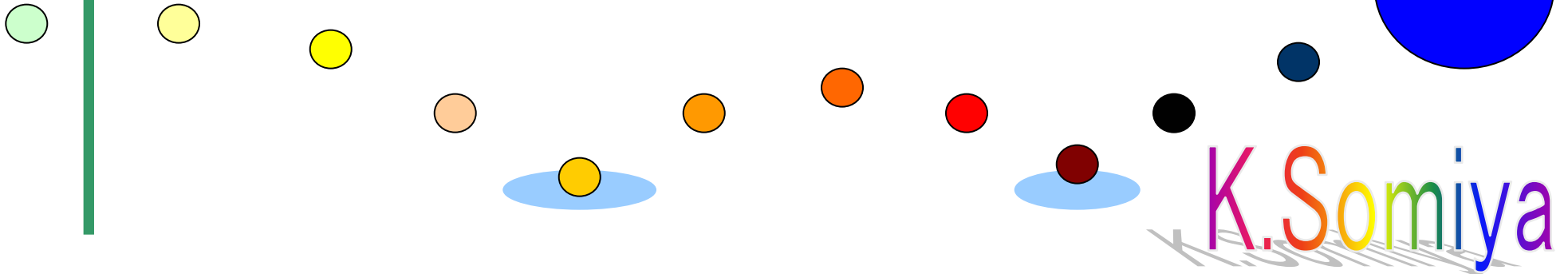


# Innovative study group

LCGT F2F meeting @ ICRR  
Sep. 2010

K.Somiya  
WIAS



# Proposal

- LCGT is finally funded!!!
- We should focus on detecting GW!



But maybe now is the time to start something new,  
something innovative...

Innovative study toward super-LCGT.



# LCGT as a 2.5G detector

LCGT is a second-generation detector like aLIGO and Ad-Virgo.

But it contains advanced techniques that are regarded to be for the third generation.

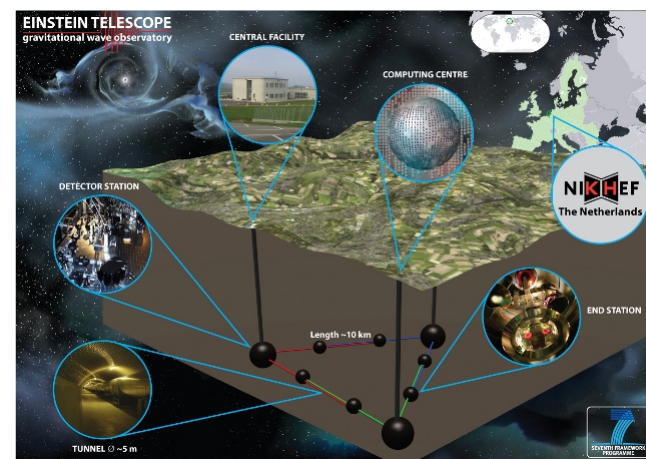
- cryogenics
- QND
- underground

We are already in a good position to be a bridge between 2G and 3G detectors.

# Activity for 3G detectors

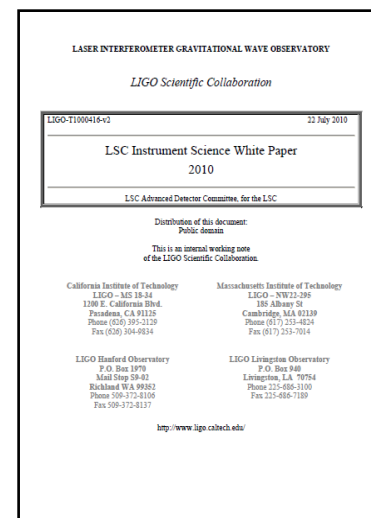
## Einstein Telescope

- design study started in 2008
- European 10km cryogenic IFO
- Xylophone, silicon, LG33, etc.



## LIGO2.5 and LIGO3

- first meeting in Sep (by Rana & Yanbei)
- room temperature operation for a while
- blue laser, conical beam, coating-less mirrors, etc. (brainstorming)



Collaboration with these people will be fruitful.

# Super-LOGT

Number of things were given up for LOGT and some more things can be easily listed up.

- Silicon
- SPI
- Squeeze injection
- Green laser
- Xylophone
- MQM study ... etc.

It'd be nice to organize this kind of activity in the LOGT group.