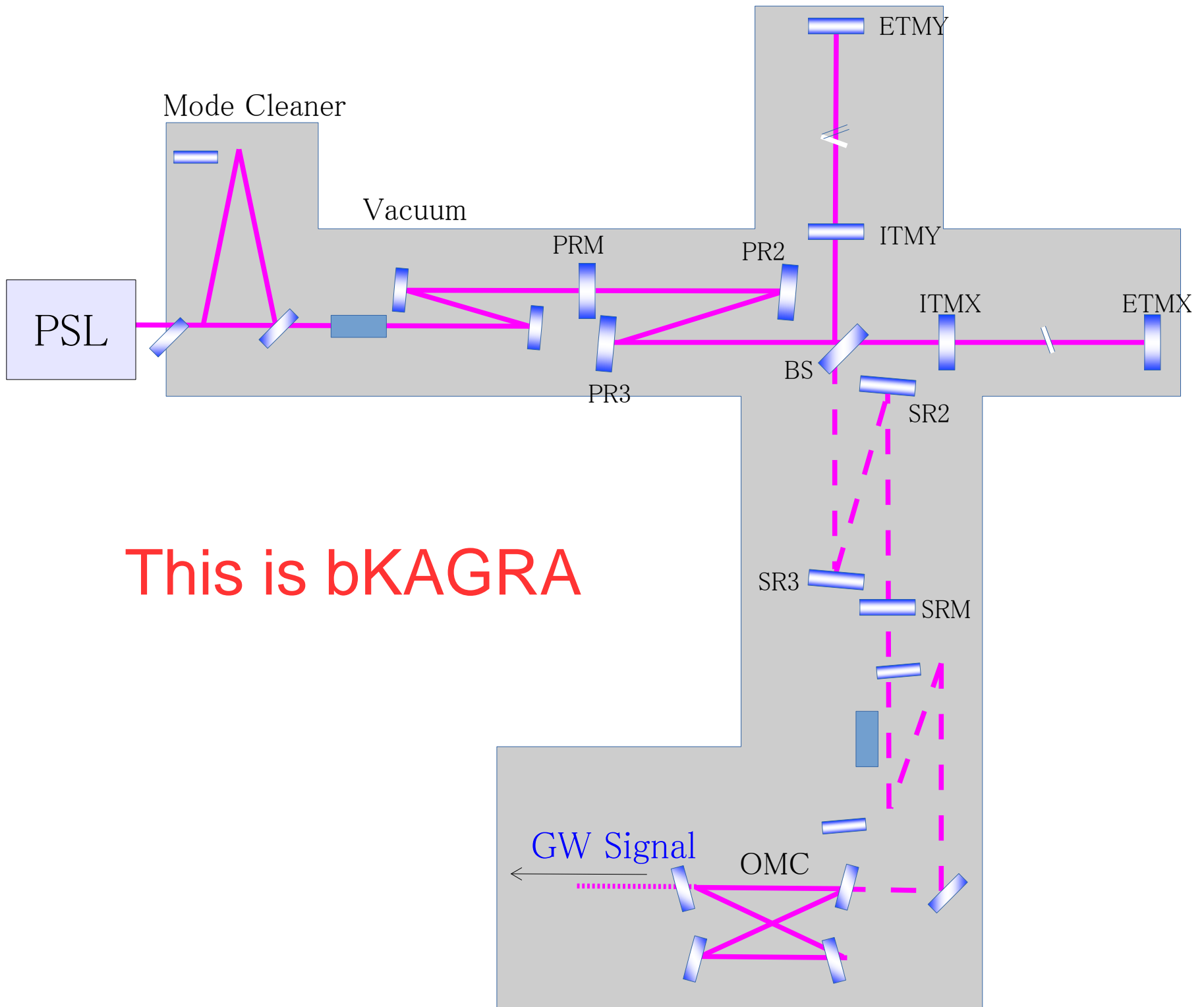
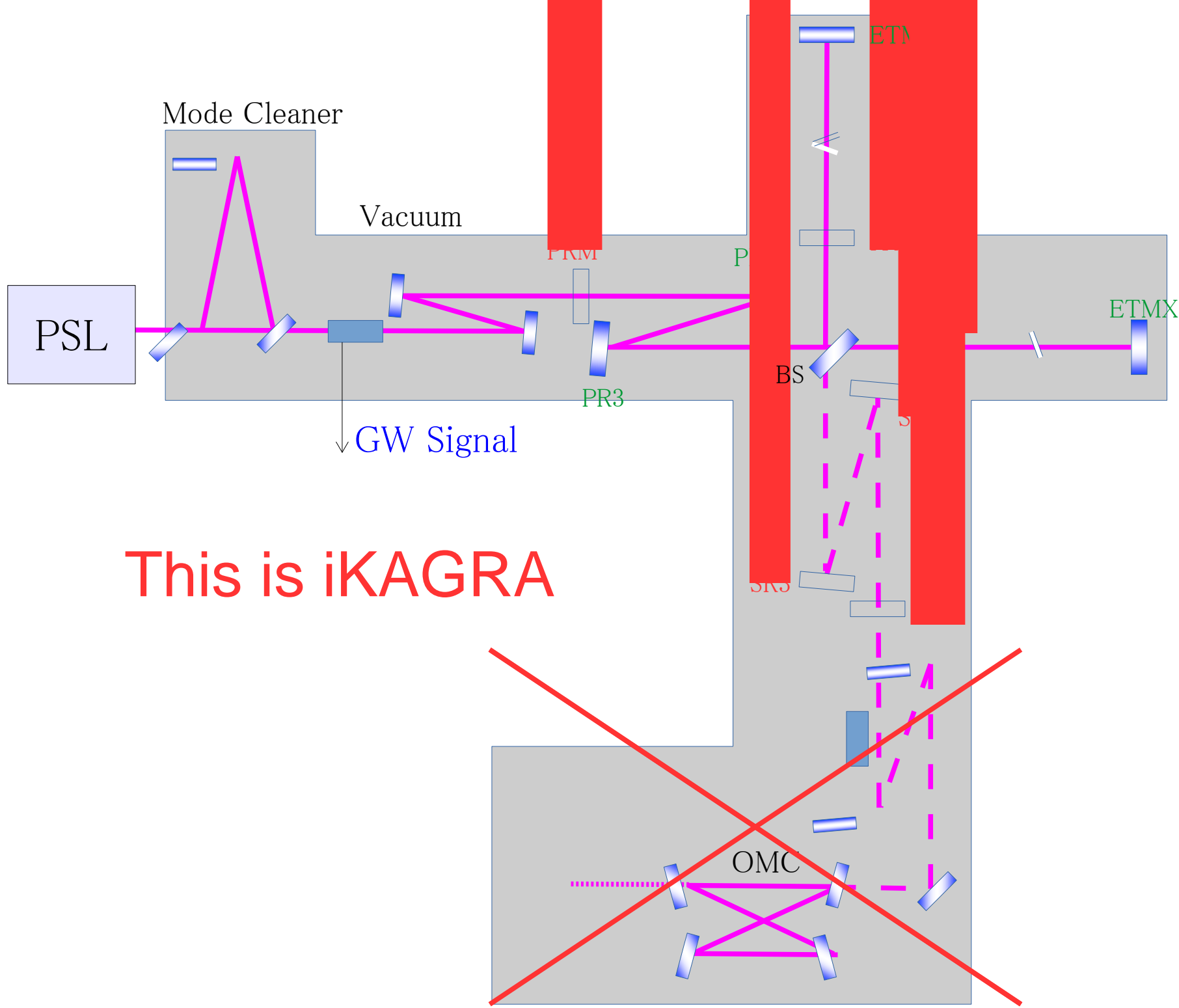


The latest iKAGRA configuration



This is bKAGRA



This is iKAGRA

# Interferometer configuration

- RSE --> 3km Michelson
- No arm cavities, no power recycling, no signal recycling
- Removed mirrors
- PRM, ITMX, ITMY, SRM, SR2, SR3
- AS output optics is entirely omitted
- Interferometer signal will be obtained from REFL port

# Suspension difference from bKAGRA

- ETMs
- Temporary suspensions using Type-B payloads
- PR2, PR3
- Fix the bottom filter to mitigate the large RMS problem
- BS
- The bread board will not be suspended
- IMMT1, IMMT2
- Use temporary 2inch mirrors, not suspended.

## Pre-Stabilized Laser (PSL)

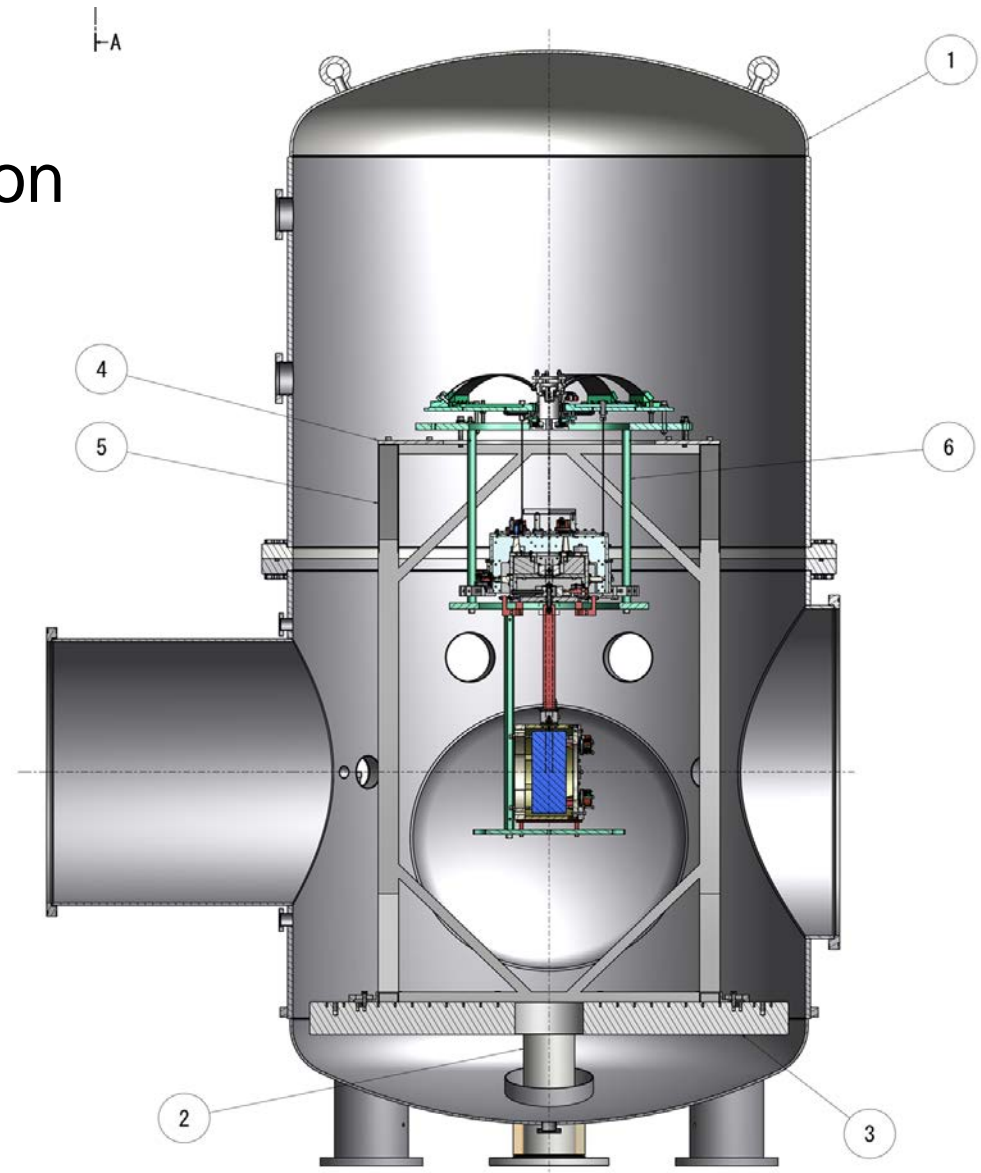
- 2W NPRO instead of 180W
- Fiber ring cavity instead of a silica reference cavity
- A temporary PMC

## What will remain the same in bKAGRA?

- Mode cleaner
- Input Faraday
- BS suspension itself

# iKAGRA test mass suspension

- Double pendulum
- Single stage of vertical isolation
- iLIGO mirror

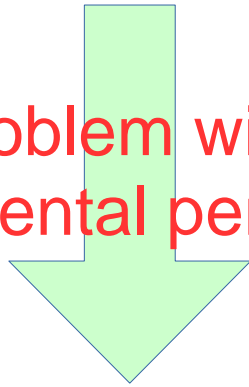


# Type-Bp test mass suspension

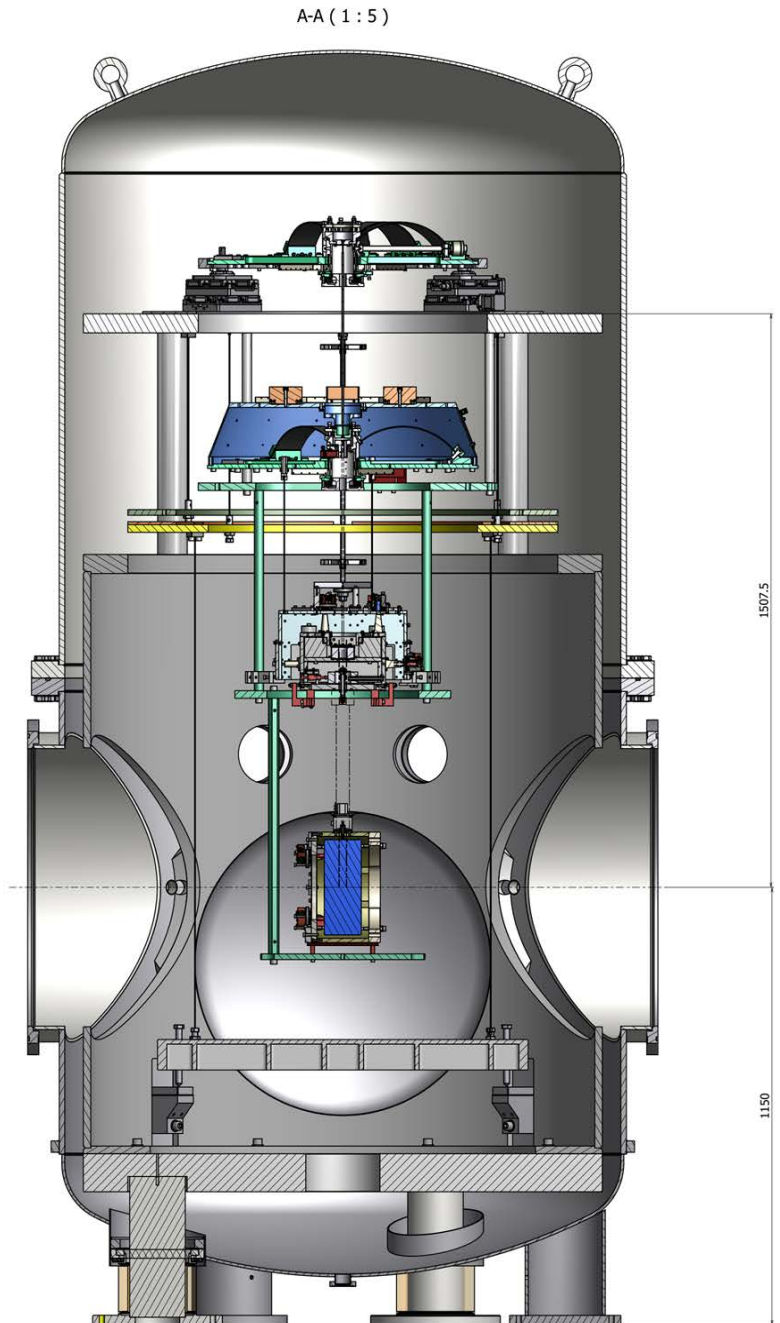
Originally

- Triple pendulum
- Two stage of vertical isolation

Found a problem with damping  
the fundamental pendulum mode



- Fix the bottom filter
- Becomes the same configuration as iKAGRA TM suspension
- Plan to make further modifications before bKAGRA





# BS Suspension (Type-B)

The optical bench will not be suspended

