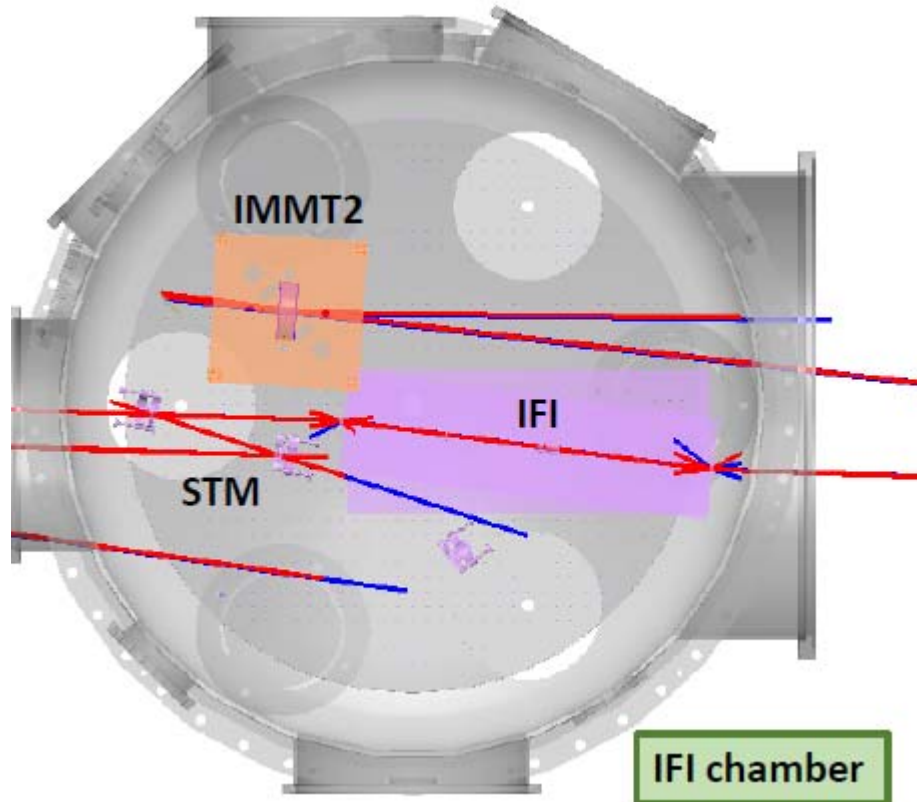


# Rotation noise requirement for STMs befor IFI

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## Scope of the simulation



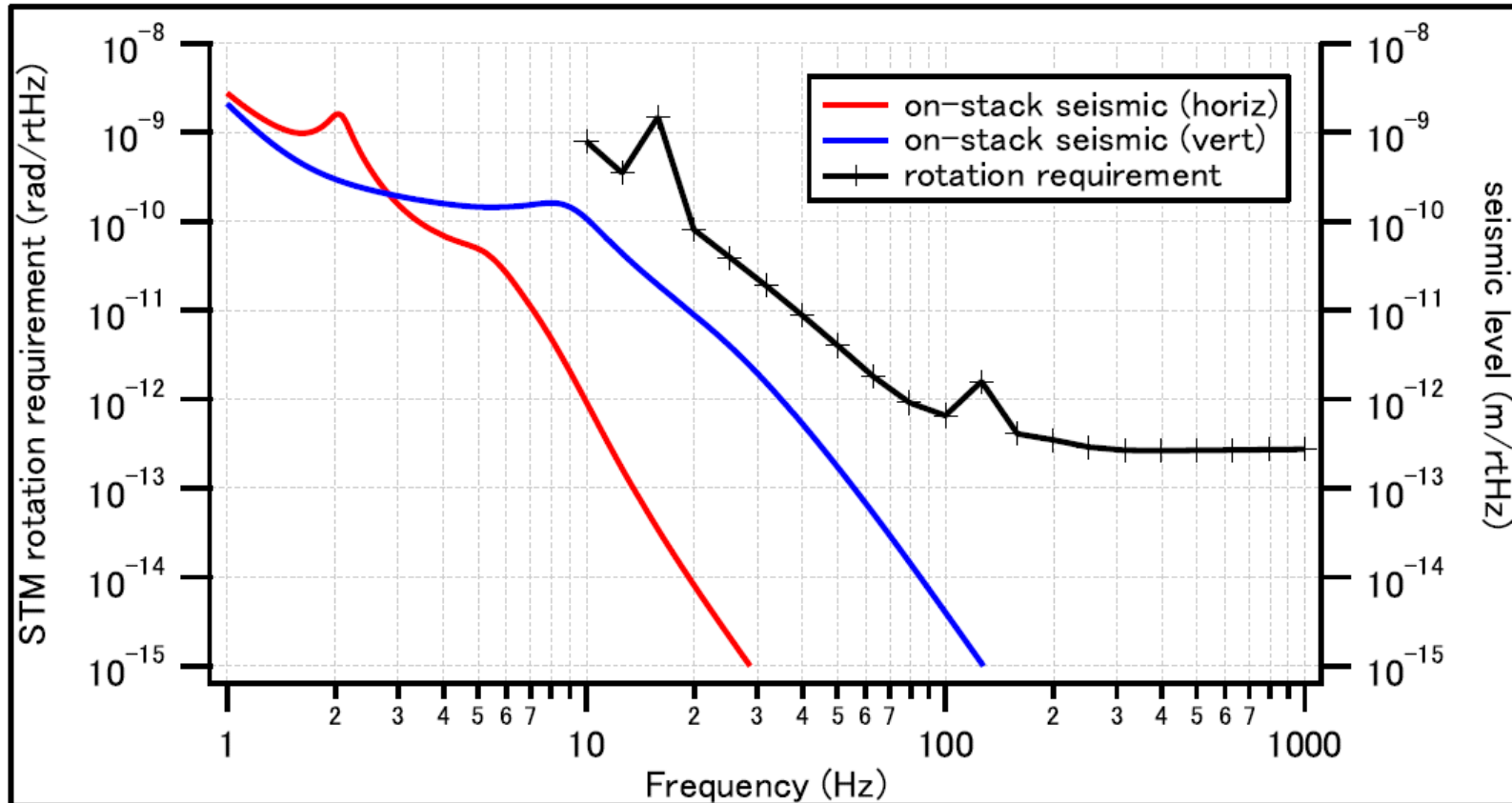
Distance of the STMs = 0.21m

STMs before IFI are fixed to the optical table that is on a stack. Horizontal motion of the STMs has been calculated and we know it does not affect the sensitivity.

Here we calculate the beam jitter due to the rotational motion (in common) of the STMs.

If the requirement is met, we do not need to suspend the STMs.

# Requirement and seismic noise

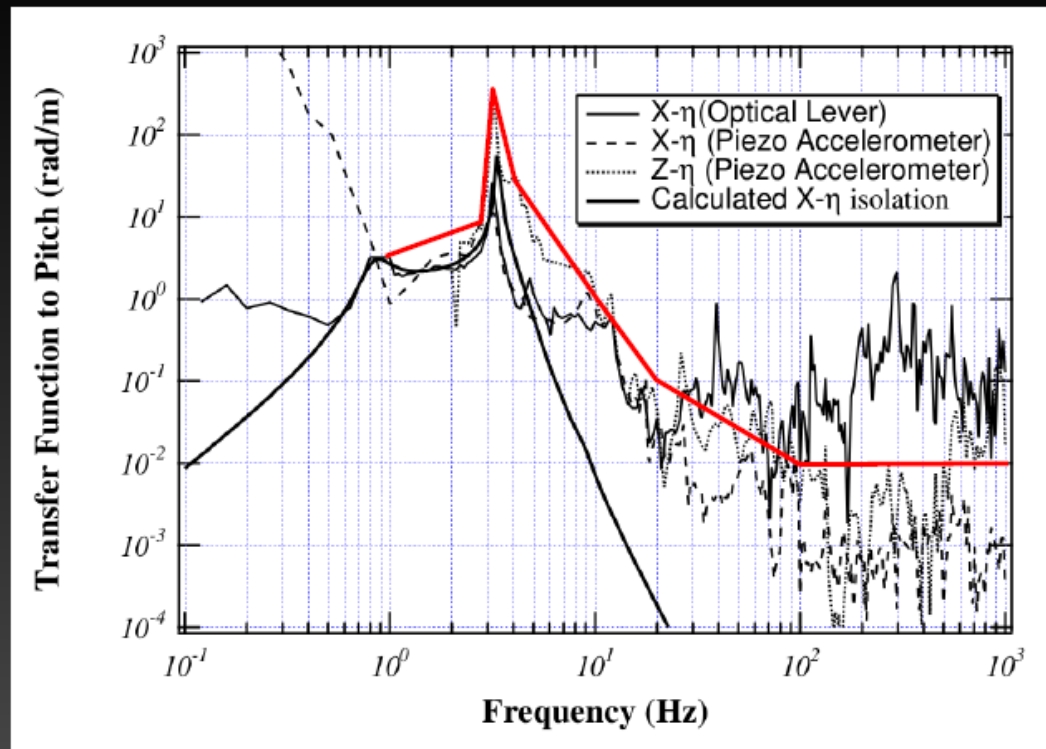


Transfer function from horizontal/vertical motion to rotation (pitch/yaw) shall be multiplied to red/blue curves.

# Aso-kun's slides in 2012

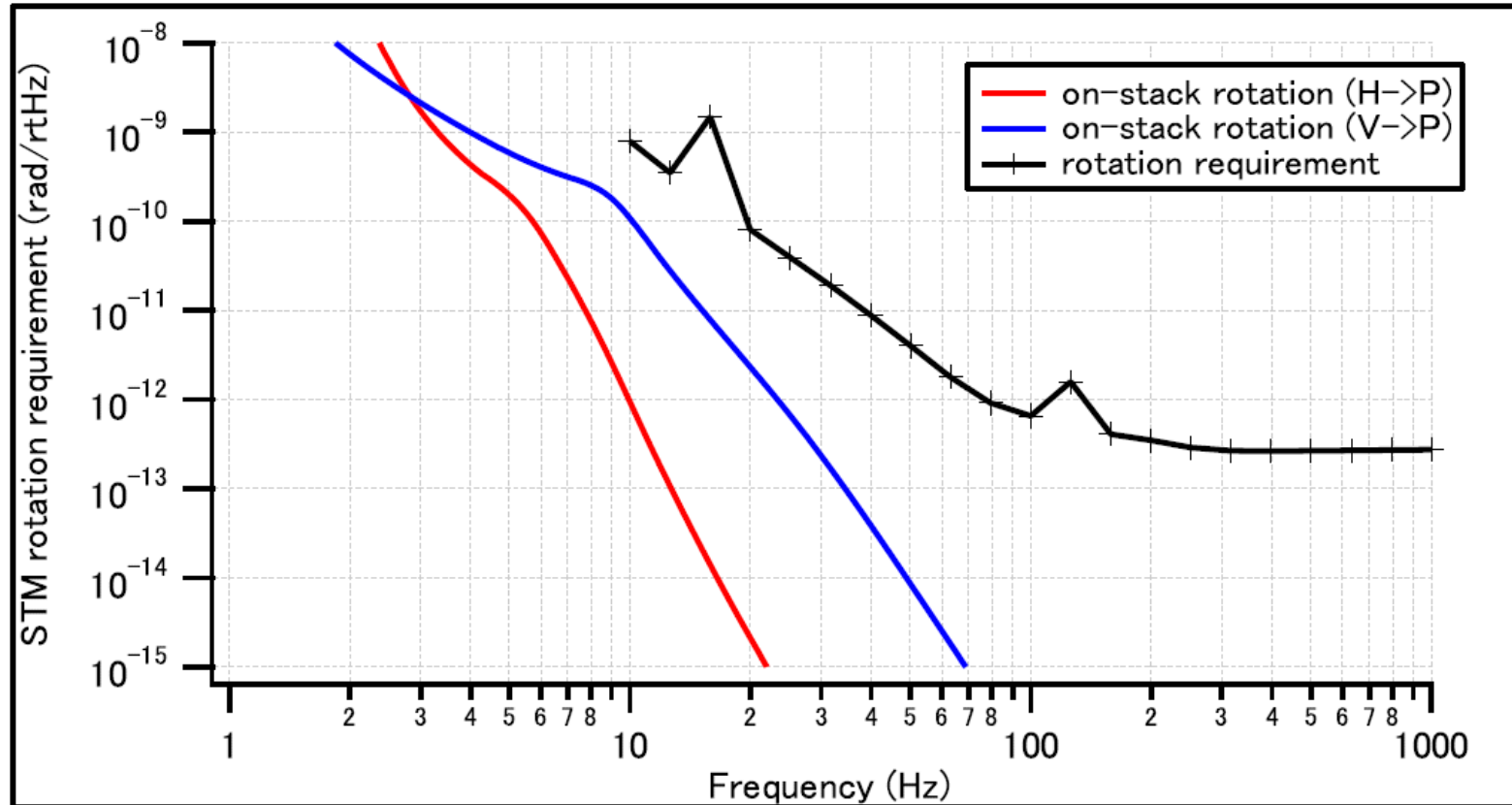
[JGW-1201272]

## TAMA Suspension 並進→Pitch 伝達関数



Roughly multiplying 0.1 to the seismic levels shown in the last page, the requirement is met above 20Hz.

# Requirement and rotational seismic noise



The requirement is met above 20Hz.