Dear editors and authors:

Tonegawa et al. studied temporal changes in seismic velocity and waveform correlation (scattering property) in the Nankai Trough subduction zone. They interpreted that changes in velocity and scattering property of the sediment occurred through different mechanisms: the first was sediment deformation and the second was fluid migration.

Data analysis was carried out appropriately and conclusions are generally valid. The current manuscript would benefit from implementing the suggestions that I describe in detail below. Most of these are merely about presentation, but there are other comments where an additional explanation might be needed to better understand the authors' findings.

1. Line 248 "This fact indicates that the dv/v changes do not expand to the area of the OBSs.": In Fig. 5, are not SHM6c and SHM7c included in the velocity reduction area? In Fig. 4, no clear velocity reduction is observed for this pair.

2. According to Fig. 6, the maximum value of Δg estimated in this study is approximately 0.08 m^{-1}. Therefore, given that $g_0=1/\ell=1/10.8$ km, $\Delta g/g_0 \sim 0.0864\%$. This value is significantly smaller than the range estimated in previous studies (several % to 100%) (Obermann et al., 2013; Obermann et al., 2014; Hirose et al., 2023).

Obermann, A., Planès, T., Larose, E., & Campillo, M. (2013). Imaging preeruptive and coeruptive structural and mechanical changes of a volcano with ambient seismic noise. Journal of Geophysical Research, [Solid Earth], 118(12), 6285–6294. https://doi.org/10.1002/2013jb010399

Obermann, A., Froment, B., Campillo, M., Larose, E., Planès, T., Valette, B., et al. (2014). Seismic noise correlations to image structural and mechanical changes associated with the M w 7.9 2008 Wenchuan earthquake. Journal of Geophysical Research, [Solid Earth], 119(4), 3155–3168. https://doi.org/10.1002/2013jb010932

Hirose, T., Wang, Q. Y., Campillo, M., & Nakahara, H. (2023). Time-lapse imaging of seismic scattering property and velocity in the northeastern Japan. Earth and Planetary Science Letters. Retrieved from https://www.sciencedirect.com/science/article/pii/S0012821X23003345

3. Sections 4.2 and 5.1 "Δg reduction" and "Δg-reduced": Since Δg represents the change in the scattering coefficient, these expressions might be misleading. Consider changing "Δg-reduced region" to "large Δg region" and "maximum Δg reduction" to "maximum Δg".

4. Lines 212 and 222: Consider adding references for Equations 5, 6, and 7.

5. $\Delta g/t$ in Equation 6 -> $\Delta S(1/t)(dv/v)$_actual K (e.g., Obermann et al., 2014).

6. Please add ΔS to the right-hand side of Equation 7.