

## The impact of tidal mixing on the Indonesian Throughflow

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The Indonesian Seas are where the Indonesian Throughflow (ITF) flows from the Pacific to the Indian Ocean. The sea surface temperature of the ITF plays an important role in the development of the atmospheric deep convection above these seas. In the Indonesian Seas, the bottom topography is rough and likely induces strong tidal mixing. To examine the impact of tidal mixing on the water mass properties of the ITF, we examined the temperature, salinity, and velocity of the ITF by using OFES2, a quasi-global ocean circulation model that includes global tidal mixing parameterization. We find the impact of tidal mixing to change the water mass properties of the ITF and its flow structure, especially above seamounts and at the straits. The vertical distribution of water mass properties at these location shows more uniform profile. This is considered that tidal mixing has a strong effect on the ITF at narrow location like Straits. We plan to analysis more to investigate the cause of these changes.

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