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**Fast wave stabilization/destabilization of ion temperature gradient drift waves in a tokamak plasma** ANURAJ PANWAR, CHANG-MO RYU, Pohang Institute of Science and Technology (POSTECH), South Korea — A kinetic description is developed for the stabilization/destabilization of ion temperature gradient drift waves by a large amplitude whistler wave. Parametric coupling of a whistler wave with the low frequency drift waves can yield whistler sidebands of their sum and difference frequencies. The whistler pump and sidebands can exert a ponderomotive force on electrons and modify the eigen-frequency of drift waves. This coupling process can lead to the stabilization/destabilization of drift waves, depending on the wave numbers of the interacting waves as well as the whistler pump power. The effectiveness of obliquely propagating whistler pump is also examined.

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