

# Using Shell Models to Study Drift Wave Turbulence in Fusion Plasmas

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A Shell model is developed to study the Hasegawa-Wakatani (HW) equations that describe electrostatic resistive drift wave turbulence in Plasmas. The usual forward cascade of enstrophy and inverse cascade of enstrophy are retrieved. The computed spectra agree with the analytically expected power law spectra in the inertial range. We compare the results of the Shell model to HW direct numerical simulations to establish the applicability of the model in deriving qualitative features of turbulence.