

A possible source of the transport shortfall phenomenon in no-man's land*,**

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Some delta-f codes see more turbulence shortfall in the no-man's land and some see less. Also, some delta-f codes do not see the turbulence short fall, but still sees the transport shortfall. In the total-f XGC1 code, the transport shortfall is usually not seen if the turbulence and transport are allowed to self-organize. Interesting physics are found from an XGC1 study. If the mean ExB flow, including the zonal and neoclassical components, is not calculated self-consistently with the turbulence, the thermal transport can be lower due to a modified phase relation between the pressure fluctuation and the field fluctuation even when the same turbulence fluctuation is used. A detailed study result will be presented as a possible cause of the transport shortfall phenomenon in no-man's land.

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