



Magnetic reconnection and turbulent diffusion

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we discuss diffusion magnetic fields by turbulent motions. We show the rates of passive scalar diffusion within magnetized fluids is similar to that in hydro simulations. That is, we show there is not apparent suppression of diffusion rates by the presence of magnetic fields, which implies that magnetic fields do not suppress heat diffusion by turbulent motions. We also discuss diffusion of magnetic fields in turbulence and its implications for magnetic reconnection.