## **Description of Additional Supplementary Files**

**Supplementary Movie 1**: Time evolution of  $\delta Z_x^+$ ,  $\delta Z_x^-$ ,  $|\delta \mathbf{Z}^+|$ , and  $|\delta \mathbf{Z}^-|$  for the time from 4.0 until 6.0 for the case with an initial cross-helicity of 0.7.

**Supplementary Movie 2**: Time evolution of the evolution term  $\frac{\partial \delta Z_x^\pm}{\partial t}$ , the nonlinear term  $-(\delta \mathbf{Z}^\mp \cdot \nabla) \delta Z_x^\pm$ , the linear term  $\pm (\mathbf{V}_{\mathbf{A}\mathbf{0}} \cdot \nabla) \delta Z_x^\pm$ , and the power spectra of  $-(\delta \mathbf{Z}^\mp \cdot \nabla) \delta Z_x^\pm$  and  $\pm (\mathbf{V}_{\mathbf{A}\mathbf{0}} \cdot \nabla) \delta Z_x^\pm$  for the time from 4.0 until 6.0 for the case with an initial cross-helicity of 0.7.