

## **Nonlinearity stability of active suspension model**

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The active suspension model resembles a kinetic equation where the orientation replaces the kinetic velocities. As the orientations are on a sphere, this introduces a degeneracy for the mixing properties. I will present mixing and enhanced dissipation estimates in this degenerate case and show how they can be combined with a velocity field for the nonlinear estimate. A key part is to take advantage of the divergence-free condition of the velocity field.