

# 密度成層下の乱流空間発展機構とスカラ輸送

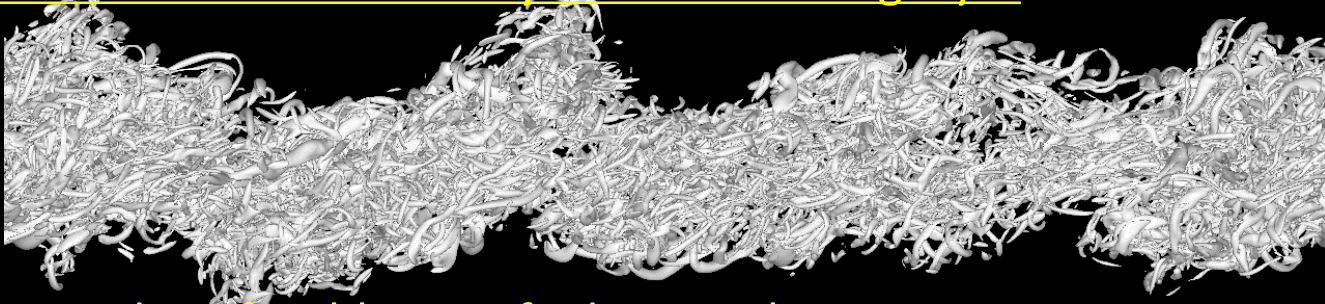
## 安定密度成層・・・地球規模の流体现象

海水の塩分濃度・温度, 大気気温 → 流体中の密度変化

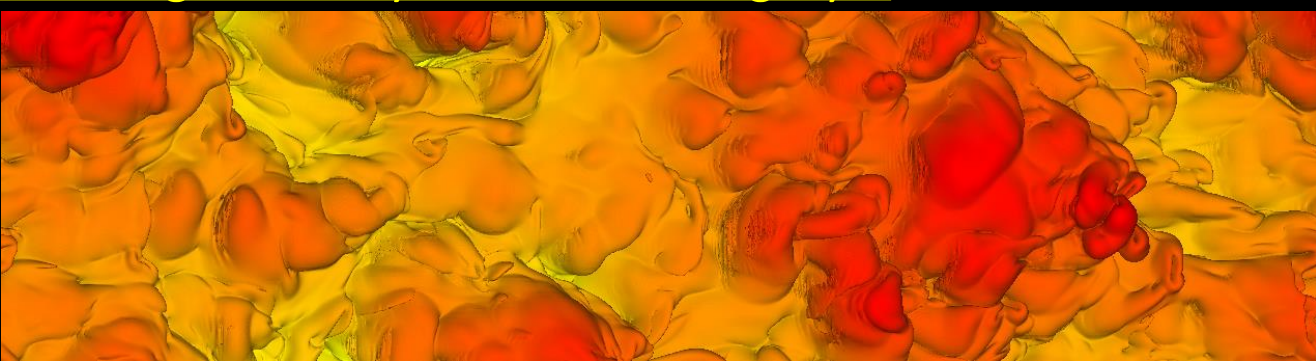
環境中における乱流塊の役割・・・汚染物質の拡散, 生態系を維持するプランクトンの分布など  
 スーパーコンピュータによる安定密度成層中の乱流塊の 大規模直接数値計算

- ・安定密度成層中の乱流生成メカニズムを解明
- ・環境中の流れの数値計算モデル手法の開発

### Vortical structures in stably stratified mixing layer



### Outer edge of stably stratified mixing layer



[1] Watanabe et al., "Turbulent/non-turbulent interfaces in wakes in stably-stratified fluids," J. Fluid Mech., 2016.  
 [2] Watanabe et al., "Lagrangian properties of the entrainment across turbulent/non-turbulent interface layers," Phys. Fluids, 2016.

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