

Main interests

- [Simulation of large-scale mixing and transport in the ocean](#)
- [Chaotic advection in the ocean and atmosphere](#)
- [Ray and wave chaos in underwater sound channel](#)
- [Marine Hydrocarbon Seeps](#)
- [Nonlinear dynamics of gas bubbles](#)
- [Dynamical symmetry in the cavitation phenomena](#)

- [Nonlinear dynamics of atoms and photons and quantum chaos](#)
- [Chaotic transport in Hamiltonian classical and quantum systems](#)
- [Dynamical symmetries of nonlinear dynamical processes](#)
- [Physics and life at oceanic fronts](#)