

ALEKSANDR A. DIDOV

PH.D.

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EDUCATION

M.S. degree in Physics, Far Eastern Federal University, Vladivostok, 2018.

POSITIONS

PhD student, Pacific Oceanological Inst., 2018 - 2022

Research Scientist, the same place, 2018 - present.

HOBBIES

football

ACTIVITY FIELDS

ALEKSANDR A. DIDOV is working in the fields of Nonlinear Science and Theoretical Physics. His major current interests include investigation of manifestations of dynamical chaos in hydrodynamics. In particular, he studies nonlinear dynamical processes, chaos, fractals and transport in the ocean, chaotic advection.

SELECTED PUBLICATIONS

2023

1. Didov A.A., Uleysky M.Yu., Budyansky M.V. Fractal structure of chaotic scattering in a simple hydrodynamic model with a point vortex embedded in a time-(quasi)periodic background flow // Communications in Nonlinear Science and Numerical Simulation. 2023. V 116. P. 106882. <https://doi.org/10.1016/j.cnsns.2022.106882>

2. Prants S.V., Budyansky M.V., Fayman P.A., Uleysky M.Yu., Didov A.A. Lagrangian Oil Spill Simulation in Peter the Great Bay (Sea of Japan) with a High-Resolution ROMS Model // Pure and Applied. Geophysics. 2023. V 180. Is 1. Pp. 551-568. <https://doi.org/10.1007/s00024-022-03197-4>

2021

1. Prants S.V., Kon'kov L.E., Didov A.A. Three-dimensional nonlinear dynamics of cold atoms in an optical lattice and its realizations // Journal of Russian Laser Research. 2021. V. 42, N. 5, Pp. 558-568. <https://doi.org/10.1007/s10946-021-09994-x>

2020

1. Didov A.A., Uleysky M.Yu., Budyansky M.V. Stable and unstable periodic orbits and their bifurcations in the nonlinear dynamical system with a fixed point vortex in a periodic flow // Communications in Nonlinear Science and Numerical Simulation. 2020. V 91. P. 105426. <https://doi.org/10.1016/j.cnsns.2020.105426>

2. Didov, A.A., Kon'kov, L.E. & Makarov, D.V. Transport through degenerate tori and quantum-to-classical crossover in a driven Aubry-Andre model // The European Physical Journal B. 2020. V 93, Is 1. <https://doi.org/10.1140/epjb/e2019-100502-6>

2018

1. Didov A.A., Uleysky M.Yu. Analysis of stationary points and their bifurcations in the ABC-flow // Applied Mathematics and Computation. 2018. V. 330. P. 56-64. <https://doi.org/10.1016/j.amc.2018.02.032>

2. Didov A.A., Uleysky M.Yu. Nonlinear resonances in the ABC-flow // Chaos. 2018. V. 28, Is. 1. P. 013123. <https://doi.org/10.1063/1.5003426>

