

# Valentin A Gushchin

## List of Publications by Year in descending order

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30  
papers

326  
citations

840119

11  
h-index

839053

18  
g-index

32  
all docs

32  
docs citations

32  
times ranked

80  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | Use of the splitting method to solve problems of the dynamics of a viscous incompressible fluid. USSR Computational Mathematics and Mathematical Physics, 1975, 15, 190-200.  | 0.0 | 53        |
| 2  | Direct numerical simulation of the transitional separated fluid flows around a sphere and a circular cylinder. Journal of Wind Engineering and Industrial Aerodynamics, 2002, 90, 341-358.                              | 1.7 | 40        |
| 3  | Vortex formation mechanisms in the wake behind a sphere for $200 < Re < 380$ . Fluid Dynamics, 2006, 41, 795-809.   | 0.2 | 33        |
| 4  | Computational aspects of the splitting method for incompressible flow with a free surface. Computers and Fluids, 1992, 21, 345-353.   | 1.3 | 30        |
| 5  | 3D Visualization of the separated fluid flows. Journal of Visualization, 2004, 7, 143-150.  | 1.1 | 28        |
| 6  | Simulation and study of stratified flows around finite bodies. Computational Mathematics and Mathematical Physics, 2016, 56, 1034-1047.   | 0.2 | 25        |
| 7  | Family of quasi-monotonic finite-difference schemes of the second-order of approximation. Mathematical Models and Computer Simulations, 2016, 8, 487-496.   | 0.1 | 24        |
| 8  | Numerical simulation and visualization of vortical structure transformation in the flow past a sphere at an increasing degree of stratification. Computational Mathematics and Mathematical Physics, 2011, 51, 251-263. | 0.2 | 20        |
| 9  | Numerical and experimental study of the fine structure of a stratified fluid flow over a circular cylinder. Journal of Applied Mechanics and Technical Physics, 2007, 48, 34-43.  | 0.1 | 18        |
| 10 | A monotonic difference scheme of second-order accuracy. USSR Computational Mathematics and Mathematical Physics, 1974, 14, 252-256.   | 0.0 | 13        |
| 11 | The splitting method for problems of the dynamics of an inhomogeneous viscous incompressible fluid. USSR Computational Mathematics and Mathematical Physics, 1981, 21, 190-204.   | 0.0 | 12        |
| 12 | Transformation of vortex structures in the wake of a sphere moving in the stratified fluid with decreasing of internal Froude number. Journal of Physics: Conference Series, 2011, 318, 062017.                         | 0.3 | 5         |
| 13 | Method SMIF for Incompressible Fluid Flows Modeling. Lecture Notes in Computer Science, 2013, , 311-318.  | 1.0 | 5         |
| 14 | Mathematical modeling of the incompressible fluid flows. , 2014, , .  |     | 3         |
| 15 | Direct numerical simulation of the sea flows around blunt bodies. AIP Conference Proceedings, 2015, , .   | 0.3 | 3         |
| 16 | On a family of monotone finite-difference schemes of the second order of approximation. AIP Conference Proceedings, 2015, , .   | 0.3 | 2         |
| 17 | The Theory and Applications of the SMIF Method for Correct Mathematical Modeling of the Incompressible Fluid Flows. Lecture Notes in Computer Science, 2015, , 209-216.   | 1.0 | 2         |
| 18 | One Approach of Solving Tasks in the Presence of Free Surface Using a Multiprocessor Computing Systems. Lecture Notes in Computer Science, 2020, , 324-331.   | 1.0 | 2         |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 19 | The Splitting Scheme for Mathematical Modeling of the Mixed Region Dynamics in a Stratified Fluid. Smart Innovation, Systems and Technologies, 2020, , 11-21.                                  | 0.5 | 2         |
| 20 | Numerical simulation of the plane flow of a viscous fluid under the action of an external force periodic in space. USSR Computational Mathematics and Mathematical Physics, 1977, 17, 228-234. | 0.0 | 1         |
| 21 | Numerical modelling of the non-stationary periodic flow of a viscous fluid in the wake behind a cylinder. USSR Computational Mathematics and Mathematical Physics, 1984, 24, 150-155.          | 0.0 | 1         |
| 22 | Flow of a fluid across an obstacle with breaking of the wave front. Fluid Dynamics, 1985, 20, 423-426.   | 0.2 | 1         |
| 23 | On One Method for Solving of a Non-stationary Fluid Flows with Free Surface. Lecture Notes in Computer Science, 2019, , 274-280.   | 1.0 | 1         |
| 24 | ON CABARET SCHEME FOR INCOMPRESSIBLE FLUID FLOW PROBLEMS WITH FREE SURFACE. , 2017, , .  |     | 1         |
| 25 | Numerical investigation of an incompressible viscous fluid flow about a body of finite size. USSR Computational Mathematics and Mathematical Physics, 1980, 20, 241-251.                       | 0.0 | 0         |
| 26 | Development and Application of the SMIF Method for the Investigation of Incompressible Fluid Flows. Smart Innovation, Systems and Technologies, 2021, , 25-38.                                 | 0.5 | 0         |
| 27 | Mathematical Modeling of Wave Motions of Fluids. Smart Innovation, Systems and Technologies, 2021, , 35-46.  | 0.5 | 0         |
| 28 | Parallel computing of 3D separated stratified fluid flows around a sphere. Lecture Notes in Computational Science and Engineering, 2009, , 321-328.  | 0.1 | 0         |
| 29 | THE LEVEL SURFACE OF THE GENERALIZED PROBLEM OF TWO CENTERS. , 2017, , .   |     | 0         |
| 30 | Mathematical Modeling of Spots Chain Dynamics in Fluid. Smart Innovation, Systems and Technologies, 2022, , 77-85.   | 0.5 | 0         |