

GEORGE GALANIS

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Visiting Professor:
US Naval Postgraduate School,
Naval Ocean Analysis and Prediction Laboratory,
Monterey, California, USA.

FIELDS OF SCIENTIFIC INTEREST:

- Mathematical and Statistical Modeling
- Optimization
- Wave modeling and marine meteorology
- Stochastic calculus and applications
- Information Geometry and applications to the optimization of simulation systems

Summarizing Table of Research and Teaching Activity

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| Teaching Experience | 25 years |
| Publications in peer reviewed journals | 64 |
| Publications in conference proceedings | 100+ |
| Citation (excluding self-citations) | 1200 + |
| Participation in externally funded projects | 19 |
| PhD supervising Committees | 7 |
| MSc supervising committees | 29 |

Degrees

- PhD in Mathematics, Department of Mathematics, University of Athens, Greece, 1995
- MSc in Mathematics, Department of Mathematics, University of Athens, Greece, 1991
- BSc in Mathematics, Department of Mathematics, University of Athens, Greece, 1990

Selected Publications

1. I. Famelis, A. Donas, G. Galanis, Comparative study of FeedForward and Radial Basis Function Neural Networks for solving an Environmental Boundary Value Problem, *Results in Applied Mathematics* 16 (2022) 100344.
2. Androulakis, E., Galanis, G. A two-step hybrid system towards optimized wave height forecasts. *Stoch Environ Res Risk Assess* (2021). <https://doi.org/10.1007/s00477-021-02075-0>
3. Donas A, Famelis I, Chu PC, Galanis G. Optimization of the Navy's three-dimensional mine impact burial prediction simulation model, Impact35, using high-order numerical methods. *The Journal of Defense Modeling and Simulation*. July 2021. doi:[10.1177/15485129211028661](https://doi.org/10.1177/15485129211028661)
4. G. Galanis, M. Kafatos, P.C. Chu, N. Hatzopoulos, E. Papageorgiou and A. Liakatas, Operational atmospheric and wave modeling in the California's coastline and offshore area with applications to wave energy monitoring and assessment, *Journal of Operational Oceanography*, Vol. 10, Issue 2, 2017
5. G. Galanis, E. Papageorgiou and A. Liakatas, A hybrid Bayesian Kalman Filter and applications to numerical wind speed modeling, *Journal of Wind Engineering & Industrial Aerodynamics* 167 (2017) 1–22.
6. G. Galanis, I. Famelis, A. Liakatas, A new Kalman Filter based on Information Geometry techniques for optimizing numerical environmental simulations, *Stochastic Environmental Research and Risk Assessment*, 31(6), 2017, pp. 1423-1435, DOI 10.1007/s00477-016-1332-5.
7. G. Galanis, Information geometry applications for optimizing numerical simulations, *Mathematical Methods in the Applied Sciences*, 1099-1476, 2016, <http://dx.doi.org/10.1002/mma.4049>.
8. George Galanis, Peter C. Chu, George Kallos, Yu-Heng Kuo and C.T.J. Dodson, Wave Height Characteristics in the North Atlantic Ocean: a new approach based on statistical and geometrical techniques, *Stoch Environ Res Risk Assess* (2012) 26:83–103.
9. G. Galanis, P.C. Chu and G. Kallos, Statistical post processes for the improvement of the results of numerical wave prediction models. A combination of Kolmogorov-Zurbenko and Kalman filters, *Journal of Operational Oceanography*, Vol 4 (1), 2011, pp. 23-31.
10. P. Louka, G. Galanis, N. Siebert, G. Kariniotakis, P. Katsafados, I. Pytharoulis, G. Kallos, Improvements in wind speed forecasts for wind power prediction purposes using Kalman filtering, *Journal of Wind Engineering & Industrial Aerodynamics* 96 (2008), pp. 2348-2362.