

PUBLICATIONS OF SPYROS A. KINNAS

Invited Chapters in Books

- Kinnas, S.A., “Theory and Numerical Methods for the Hydrodynamic Analysis of Marine Propulsors,” in *Advances in Marine Hydrodynamics*, Computational Mechanics Publications, Ch. 6, pp. 279-322, 1996.
- Kinnas, S.A., “Super-cavitating 2-D Hydrofoils: Prediction of Performance and Design,” in CD-ROM on *Super-cavitating Flows*, NATO Research and Technology Organization, January 2002.
- Kinnas, S.A., “Super-cavitating 3-D Hydrofoils and Propellers: Prediction of Performance and Design,” in CD-ROM on *Super-cavitating Flows*, NATO Research and Technology Organization, January 2002.
- Kinnas, S.A. “*Theory of Cavitation*”, Chapter 6 in *The Principles of Naval Architecture Series: Propulsion*, Nov. 2010, J.E. Kerwin and J. Hadler, Society of Naval Architects and Marine Engineers (SNAME)
- Kinnas, S.A. ”*Simulation of Cavitating and Free Surface Flows Using BEM*,” Chapter 9 in *Boundary Element Methods in Engineering and Sciences*, Imperial College Press, pp. 323-363, 2011.
- Kinnas, S.A. ”*Hydrodynamic Analysis of Marine Propulsors*” in *Encyclopedia of Marine and Offshore Engineering*, Wiley, 2017 (in press)

Refereed Journals

- Kerwin, J.E., Kinnas, S.A., Lee, J.-T. and Shih, W.-Z., “A Surface Panel Method for the Hydrodynamic Analysis of Ducted Propellers,” *Trans. SNAME*, Vol. 95, pp. 93-122, 1987.
- Kinnas, S.A., “Leading Edge Corrections to the Linear Theory of Partially Cavitating Hydrofoils,” *Journal of Ship Research*, Vol. 35, pp. 15-27, 1991.
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- Kinnas, S.A. and Mazel, C.H., “Numerical vs. Experimental Cavitation Tunnel (A Supercavitating Hydrofoil Experiment),” *Journal of Fluids Engineering*, Vol. 115, pp. 760-765, 1993.
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- Su, Y. and Kinnas, S.A., 2017 “A Generalized Potential/RANS Interactive Method for the Prediction of Propulsor Performance,” *Journal of Ship Research* (in press)

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- Kinnas, S.A., Griffin, P.E. and Mueller, A.C., “Computational Tools for the Analysis and Design of High-Speed Propulsors,” *The International CFD Conference*, Ulsteinvik, Norway, pp. 7/1-1/14, May 1997.
- Kinnas, S.A., “The Prediction of Unsteady Sheet Cavitation,” *3rd International Symposium on Cavitation*, Grenoble, France, April 1998. (keynote)
- Kinnas, S.A., Choi, J.-K., Kosal, E.M., Young, J. and Lee, H., “An Integrated Computational Technique for the Design of Propellers with Specified Constraints on Cavitation Extent and Hull Pressure Fluctuations,” *CFD’99; CFD Technology in Ship Hydrodynamics*, Ulsteinvik, Norway, June 5-7, 1999.
- Kinnas, S.A. and Lee, H., “Prediction of Unsteady Sheet and Developed Tip Vortex Cavitation; A Review and Some Recent Techniques,” *10th Cavitation Symposium*, Fukui, Japan, November 4-5, 1999.
- Kinnas, S.A., “Prediction of Propeller Blade Flows using BEM - A review and recent applications,” *4th International Conference on Boundary Element Techniques, BETEQ2003*, Granada, Spain, pp. 405 - 412, July 15-17, 2003.
- Kinnas, S.A. and Vinayan, V. "A BEM for the Propagation of Nonlinear Free-surface Waves" *BeTeQ05, 6th International Conference on Boundary Element Techniques*, Montreal, Canada, July 27-29, 2005.
- Kinnas, S.A. “Prediction of performance and design of propulsors: Recent advances and applications”, *T-POD 2006: 2nd International Conference on Technological Advances in Podded Propulsion*, October 2006, Brest, France (keynote)
- Vinayan, V. and Kinnas, S.A., “A Non-linear BEM for surface-piercing hydrofoils”, *International Conference on Boundary Element Techniques*, 22-24 July 2009, Athens, Greece (invited paper)

Papers in Proceedings of Refereed Conferences

- Kerwin, J.E., Kinnas, S.A., Wilson, M.B. and McHugh, J., “Experimental and Analytical Techniques for the Study of Unsteady Propeller Sheet Cavitation,” *Proceedings of the Sixteenth Symposium on Naval Hydrodynamics*, Office of Naval Research, National Academy Press, pp. 387-414, 1986.

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