SIGNIFICANT 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 Maritime & Offshore Engineering*, Wiley, January 2018, https://onlinelibrary.wiley.com/doi/10.1002/9781118476406.emoe104

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.

- Kinnas, S.A. and Fine, N.E., "Analysis of the Flow Around Supercavitating Hydrofoils with Mid-chord and Face Cavity Detachment," *Journal of Ship Research*, Vol. 35, pp. 198-209, 1991.

- Kinnas, S.A., "Inversion of the Source and Vorticity Equations for Super-cavitating Hydrofoils," *Journal of Engineering Mathematics*, Vol. 26, pp. 349-361, 1992.

- Kinnas, S.A. and Hsin, C.-Y., "Boundary Element Method for the Analysis of the Unsteady Flow Around Extreme Propeller Geometries," *AIAA Journal*, Vol. 30, pp. 688-696, 1992.

- Kinnas, S.A., "A General Theory for the Coupling Between Thickness and Loading for Wings and Propellers," *Journal of Ship Research*, Vol. 36, pp. 59-68, 1992.

- Hughes, M.J., Kinnas, S.A. and Kerwin, J.E., "Experimental Validation of a Ducted Propeller Analysis Method," *Journal of Fluids Engineering*, Vol. 114, pp. 214-219, 1992.

- Kinnas, S.A. and Coney, W.B., "The Generalized Image Model - An Application to the Design of Ducted Propellers," *Journal of Ship Research*, Vol. 36, pp. 197-209, 1992.

- Fine, N.E. and Kinnas, S.A., "A Boundary Element Method for the Analysis of the Flow Around 3-D Cavitating Hydrofoils," *Journal of Ship Research*, Vol. 37, pp. 213-224, 1993.

- Kinnas, S.A. and Fine, N.E., "A Numerical Nonlinear Analysis of the Flow Around 2-D and 3-D Partially Cavitating Hydrofoils," *Journal of Fluid Mechanics*, Vol. 254, pp. 151-181, 1993.

- Kinnas, S.A. and Mazel, C.H., "Numerical vs. Experimental Cavitation Tunnel (A Super-cavitating Hydrofoil Experiment)," *Journal of Fluids Engineering*, Vol. 115, pp. 760-765, 1993.

- Kinnas, S.A. and Hsin, C.-Y., "The Local Error of a Low-Order Boundary Element Method at the Trailing Edge of a Hydrofoil and its Effect on the Global Solution," *Computers and Fluids,* Vol. 23 (No.1), pp. 63-75, 1994.

- Kinnas, S.A., "An International Consortium on High-Speed Propulsion," *Marine Technology*, Vol. 33 (No. 3), pp. 203-210, 1996.

- Mishima, S. and Kinnas, S.A.,"A Numerical Optimization Technique Applied to the Design of Two-dimensional Cavitating Hydrofoil Sections," *Journal of Ship Research*, Vol. 40, pp. 28-38, 1996.

- Pyo, S. and Kinnas, S.A., "Propeller Wake Sheet Roll-up Modeling in Three Dimensions," *Journal of Ship Research*, Vol. 41, pp. 81-92, 1997.

- Mishima, S. and Kinnas, S.A., "Application of a Numerical Optimization Technique to the Design of Cavitating Propellers in Nonuniform Flow," *Journal of Ship Research*, Vol. 41, pp. 93-107, 1997.

- Brewer, W.H. and Kinnas, S.A., "Experiment and Viscous Flow Analysis on a Partially Cavitating Hydrofoil," *Journal of Ship Research*, Vol. 41, pp. 161-171, 1997.

- Choi, J.-K. and Kinnas, S.A., "Numerical Water Tunnel in Two and Three Dimensions," *Journal of Ship Research*, Vol. 42, pp. 86-98, 1998.

- Griffin, P.E. and Kinnas, S.A., "A Design Method for High-speed Propulsor Blades," *Journal of Fluids Engineering*, Vol. 120, pp. 556-562, 1998.

- Kinnas, S.A., Kimball, R.W. and Choi, J.-K., "Cavitating Propeller Experiment (CAPREXIII) Measurement and Prediction of Tunnel Pressures," *Journal of Ship Research*, Vol. 42, pp. 233-248, 1998.

- Kinnas, S.A., Griffin, P.E., Choi, J.-K. and Kosal, E.M., "Automated Design of Propulsor Blades for High-speed Ocean Vehicle Applications," *Trans. SNAME*, Vol. 106, pp. 213-240, 1998.

- Kinnas, S.A. and Pyo, S., "Cavitating Propeller Analysis Including the Effects of Wake Alignment," *Journal of Ship Research*, Vol. 43, pp. 38-47, 1999.

- Mueller, A.C. and Kinnas, S.A., "Propeller Sheet Cavitation Prediction Using a Panel Method," *Journal of Fluids Engineering*, Vol. 121, pp. 282-288, June 1999.

- Choi, J.-K. and Kinnas, S.A., "Numerical Model of Cavitating Propeller Inside of a Tunnel," *Journal of Fluids Engineering*, Vol. 121, pp. 297-304, June 1999.

- Choi, J.-K. and Kinnas, S.A., "Prediction of Non-axisymmetric Effective Wake by a 3-D Euler Solver," *Journal of Ship Research*, Vol. 45, pp. 13-33, March 2001.

- Bal, S., Kinnas, S.A. and Lee, H., "Numerical Analysis for 2-D and 3-D Cavitating Hydrofoils under a Free Surface," *Journal of Ship Research*, Vol. 45, pp. 34-49, March 2001.

- Young, Y.L. and Kinnas, S.A., "A BEM for the Prediction of Unsteady Midchord Face and/or Back Propeller Cavitation," *Journal of Fluids Engineering*, Vol. 123, pp. 311-319, June 2001.

- Bal, S. and Kinnas, S.A., "A BEM for the Prediction of Free Surface Effects on Cavitating Hydrofoils," *Journal of Computational Mechanics*, Vol. 28, Number 3-4, pp. 260-274, April 2002.

- Kinnas, S.A., Lee, H. and Young, Y.L., "Boundary Element Techniques for the Prediction of Sheet and Developed Tip Vortex Cavitation," *Electronic Journal of Boundary Elements*, Vol. BETEQ2001, No. 2, pp. 151-178, 2002.

- Kinnas, S.A., Choi, J.-K., Lee, H., Young, Y.L., Gu, H., Kakar, K. and Natarajan, S., "Prediction of Cavitation Performance of Single or Multi-component Propulsors and their Interaction with the Hull," *Trans. Society of Naval Architects and Marine Engineers*, Vol. 110, pp. 215-244, 2002.

- Young, Y.L. and Kinnas, S.A., "Numerical Modeling of Supercavitating Propeller Flows," *Journal of Ship Research*, Vol. 47, pp. 48-62, March 2003.

- Choi, J.-K. and Kinnas, S.A., "Prediction of Unsteady Effective Wake by a Euler Solver/Vortex-Lattice Coupled Method," *Journal of Ship Research*, Vol. 47, pp. 131-144, June 2003.

- Kinnas, S.A., Lee, H. and Young Y.-L., "Modeling of Unsteady Sheet Cavitation on Marine Propeller Blades," *International Journal of Rotating Machinery,* Vol. 9, No. 4, pp. 263-277, July-August 2003.

- Bal, S. and Kinnas, S.A., "A Numerical Wave Tank Model for Cavitating Hydrofoils," *Journal of Computational Mechanics*, Vol. 32, No. 4-6, pp. 259-268, December 2003.

- Young, Y.L. and Kinnas, S.A., "Analysis of Supercavitating and Surface-Piercing Propeller Flows via BEM," *Journal of Computational Mechanics*, Vol. 32, No. 4-6, pp. 269-280, December 2003.

- Kinnas, S.A. and Young Y.-L., "Modeling of Cavitating or Ventilated Flows using BEM, "*International Journal for Numerical Methods in Heat & Fluid Flow,* Vol.13, No. 6, pp. 672-697, August 2003

- Lee, H. and Kinnas, S.A., "Application of BEM in the Prediction of Unsteady Blade Sheet and Developed Tip Vortex Cavitation on Marine Propellers," *Journal of Ship Research*, Vol. 48, No. 1, pp. 15-30, March 2004.

- Young, Y.L. and Kinnas, S.A., "Performance Prediction of Surface-Piercing Propellers," *Journal of Ship Research*, 2004, Vol. 48, No. 4, pp. 288-304, December 2004.

- Lee, H. and Kinnas, S.A., "Fully Unsteady Wake Alignment for Propellers in Non-axisymmetric Flows," *Journal of Ship Research*, Vol. 49, No. 3, pp. 176-190, September 2005.

- Lee, H. and Kinnas, S.A., "A BEM for the Modeling of Unsteady Propeller Sheet Cavitation inside of a Cavitation Tunnel," *Journal of Computational Mechanics*, Vol. 37, No. 1, pp. 41-51, December 2005 (published online, July 2005).

- Kinnas, S.A., Lee, H., Gu, H., and Deng, Y.,"Prediction of Performance and Design via Optimization of Ducted Propellers Subject to Non-axisymmetric Inflows", *Trans. Society of Naval Architects and Marine Engineers*, Vol. 113, 2005. March 2005

- Kinnas, S.A. "A Note on Bernoulli Equation for Propeller Flows: The *Effective* Pressure, " *Journal of Ship Research,* Vol. 50, No. 4, pp. 355-359, December 2006.

- Vinayan, V. and Kinnas, S.A. "A BEM for the Propagation of Nonlinear Planar Free-surface Waves", *Electronic Journal of Boundary Elements*, Vol. 5, Issue 1, 2007.

- Kinnas, S.A., Lee, H., Gu, H., and Natarajan, S. "Prediction of sheet cavitation on a rudder subject to propeller flow," *Journal of Ship Research* Vol. 51, pp. 65-75, March 2007

- Sun, H. and Kinnas, S.A., "Performance prediction of cavitating water-jet propulsors using a viscous/inviscid interactive method," *Transactions, SNAME (Society of Naval Architects and Marine Engineers),* Vol. 116, pp. 166-181, 2008

- Yu, Y.-H. and Kinnas, S.A., "Roll Response of Various Hull Sectional Shapes Using a Navier-Stokes Solver", *International Journal of Offshore and Polar Engineering*, Vol. 19, No. 1, March 2009, pp. 46-51

- Vinayan, V. and Kinnas, S.A. "A numerical nonlinear analysis of two-dimensional ventilating entry of surface-piercing hydrofoils with effects of gravity", *Journal of Fluid Mechanics*, 2010, Vol. 658, pp. 383-408.

- Xu,W. and Kinnas, S.A.,"Performance Prediction and Design of Marine Current Turbines in the Presence of Cavitation", *SNAME (Society of Naval Architects and Marine Engineers) Transactions, 2010* .

- Pan, Y. and Kinnas, S.A., "A viscous/inviscid interactive approach for the prediction of performance of hydrofoils and propellers with non-zero trailing edge thickness", *Journal of Ship Research*, Vol. 55, No. 1, March 2011, pp. 45–63

- Kinnas, S.A., Xu, W., Yu, Y.-H., and He, L., (2012) "Computational Methods for the Design and Prediction of Performance of Tidal Turbines", *Journal of Offshore Mechanics and Arctic Engineering*, October 2011 (online), February 2012, Vol. 134, Issue 1, pp. 011101-1-10

- Tian, Y.and Kinnas, S.A., (2012) "A Wake Model for the Prediction of Propeller Performance at Low Advance Ratios", *International Journal of Rotating Machinery*, Volume 2012, Article ID 372364, 11 pages; doi:10.1155/2012/372364

- Kinnas, S.A., Tian, Y., and Sharma, A., (2012) "Numerical Modeling of a Marine Propeller Undergoing Surge and Heave Motion", *International Journal of Rotating Machinery*, Volume 2012, Article ID 257461, 8 pages; doi:10.1155/2012/257461

- Han, C. and Kinnas, S.A. (2013) "Study on the Wake Shape Behind a Wing In Ground Effect Using a Discrete Vortex Method", *Open Journal of Fluid Dynamics*, 6 pages, doi:10.4236/ojfd.2013

- He, L., Kinnas, S.A., and Xu, W., (2014) "A Vortex-Lattice Method for the Prediction of Unsteady Performance of Marine Propellers and Current Turbines", *International Journal of Offshore and Polar Engineering*, Vol. 23, No. 3, September 2013, pp. 210-217.

- Tian, Y., Jeon, C.-H., and Kinnas, S.A., (2014) "Effective Wake Calculation/Application to Ducted Propellers", *Journal of Ship Research*, Vol. 58, No. 2, June 2014, pp. 1–13.

- Menendez-Aran, D. and Kinnas, S.A., (2014) "On Fully Aligned Lifting Line Model for Propellers: An Assessment of Betz's Condition", *Journal of Ship Research*, Vol. 58, No. 3, September 2014.

- Tian, Y. and Kinnas, S.A., (2015) "Thruster and hull interaction", *Journal of Offshore Mechanics and Arctic Engineering*, 137, 4, 041801.

- Kinnas, S.A., Fan, H. and Tian, Y., (2015) "A Panel Method with a Full Wake Alignment Model for the Prediction of the Performance of Ducted Propellers", *Journal of Ship Research*, Vol. 59, No. 4, December 2015.

- He, L. and Kinnas, (2017) "Numerical Simulation of Unsteady Propeller/Rudder Interaction", *International Journal of Naval Architecture and Ocean Engineering*, Vol. 9 (No. 6), November 2017, pp. 677-692, http://dx.doi.org/10.1016/j.ijnaoe.2017.02.004

- Su, Y. and Kinnas, S.A., (2017) "A Generalized Potential/RANS Interactive Method for the Prediction of Propulsor Performance," *Journal of Ship Research,* Vol. 61 (No. 4), December 2017, pp. 214-229

- Su, Y. and Kinnas, S. A., (2018) "A BEM/RANS interactive method for predicting contra-rotating propeller performance", *Ocean Systems Engineering,* 7(4), 2017, 329-344.

- Wang, G., Tian, Y., and Kinnas, S.A., (2018) "Particle Image Velocimetry Experiment and Computational Fluid Dynamics Simulation of Flow Around Rigid Cylinder", *Journal of Offshore Mechanics and Arctic Eng*, 2018;140(5):051801-051801-11; https://doi.org/10.1115/1.4039948

- Su, Y., Kim, S., and Kinnas, S.A., (2018) "Prediction of Propeller-Induced Hull Pressure Fluctuations via a Potential-Based Method: Study of the Effects of Different Wake Alignment Methods and of the Rudder", *Journal of Marine Science and Engineering*, 2018, May, 6(2), 52; https://doi.org/10.3390/jmse6020052

- Kim, S., Kinnas, S.A., and Du, W., (2018) "Panel Method for Ducted Propellers with Sharp Trailing Edge Duct with Fully Aligned Wake on Blade and Duct", *Journal of Marine Science and Engineering*, 2018, July, 6(3), 89; https://doi.org/10.3390/jmse6030089

- Menéndez Arán, D.H., Tian, Y., and Kinnas, S.A., (2018) "Effect of wake alignment on turbine blade loading distribution and power coefficient", *Journal of Offshore Mechanics & Arctic Engineering*, ASME, 2018 (online) https://doi.org/10.1115/1.4041669

- Du, W. and Kinnas, S.A., (2018) "A flow separation model for hydrofoil, propeller and duct sections with blunt trailing edges", *Journal of Fluid Mechanics*, 19 December 2018 (online), pp. 180-199 https://doi.org/10.1017/jfm.2018.859

- Wu, C.; Kinnas, S.A.; Li, Z.;Wu, Y., (2019) "A conservative viscous vorticity method for unsteady unidirectional 175 and oscillatory flow past a circular cylinder", *Ocean Engineering*, 2019, https://doi.org/10.1016/j.oceaneng.2019.106504

- Kim, S. and Kinnas, S.A., (2020) "Prediction of Unsteady Developed Tip Vortex Cavitation and Its Effect on the Induced Hull Pressures", *Journal of Marine Science and Engineering*, February 13, 2020, 8(2), 114; https://doi.org/10.3390/jmse8020114

- Kinnas, S.A., (2020) "VIScous Vorticity Equation (VISVE) for Turbulent 2-D Flows with Variable Density and Viscosity" *Journal of Marine Science and Engineering*, March 11, 2020, 8(3), 191; https://doi.org/10.3390/jmse8030191

- Wu, C. and Kinnas, S.A., (2020) "Parallel Implementation of a VIScous Vorticity Equation (VISVE) Method in 3-D Incompressible Flow", *Journal of Computational Physics*, 109912.

- Kim, S., Su, Y., and Kinnas, S.A., (2020) "A BEM/RANS Interactive Method Applied to an Axial Tidal Turbine Farm", *Journal of Ship Research*, https://doi.org/10.5957/JOSR.04180018

- Wu, C. and Kinnas, S.A., (2021) "Flow past a rotating cylinder predicted by a compact Eulerian viscous vorticity method under non-inertial rotating frame", *Ocean Engineering*, https://doi.org/10.1016/j.oceaneng.2021.108882

- Kim, S. and Kinnas, S.A., (2021) "Prediction of cavitating performance of a tip loaded propeller and its induced hull pressures", *Ocean Engineering*, https://doi.org/10.1016/j.oceaneng.2021.108961

- Du, W. and Kinnas, S.A., (2021) "A 3D Flow Separation Model for Open Propellers with Blunt Trailing Edge", *Ocean Engineering*, https://doi.org/10.1016/j.oceaneng.2021.109054

- Tsao, W.-H. and Kinnas, S.A., (2021) "Local Simulation of Sloshing Jet in a Rolling Tank by Viscous-Inviscid Interaction Method", *Results in Engineering*, https://doi.org/10.1016/j.rineng.2021.100270

- Kinnas, S.A., Cha, K. and Kim, S., (2021) "Comprehensive Design Method for Open or Ducted Propellers for Underwater Vehicles," *SNAME Transactions*, 2021 (in print)

- Kim, S. and Kinnas, S.A., (2022) "A panel method for the prediction of unsteady performance of ducted propellers in ship behind condition", *Ocean Engineering*, https://doi.org/10.1016/j.oceaneng.2022.110582

- You, R. and Kinnas, S.A., (2022) "VIScous Vorticity Equation (VISVE) Model Applied to 2D Turbulent Flow Over Hydrofoils", *Ocean Engineering*, https://doi.org/10.1016/j.oceaneng.2022.111416

Papers in Proceedings of 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.

- Kinnas, S.A. and Coney, W.B., "On the Optimum Ducted Propeller Loading," Proceedings of *Propellers '88 Symposium*, Society of Naval Architects and Marine Engineers, Virginia Beach, VA, pp. 1/1-1/13, 1988.

- Kinnas, S.A., Hsin, C.-Y. and Keenan, D.P., "A Potential Based Panel Method for the Unsteady Flow Around Open and Ducted Propellers," Proceedings of the *Eighteenth Symposium on Naval Hydrodynamics*, Office of Naval Research, National Academy Press, pp. 667-685, 1991.

- Kinnas, S.A. and Fine, N.E., "Non-Linear Analysis of the Flow Around Partially or Super Cavitating Hydrofoils by a Potential Based Panel Method," in *Boundary Integral Methods-Theory and Applications*, Proceedings of the IABEM-90 Symposium, Rome, Italy, Springer Verlag, pp. 289-300, 1991.

- Hsin, C.-Y., Kerwin, J.E. and Kinnas, S.A., "A Panel Method for the Analysis of the Flow Around Highly Skewed Propellers," Proceedings of *Propellers & Shafting '91 Symposium*, Society of Naval Architects and Marine Engineers, Virginia Beach, VA, pp. 11/1-11/13, 1991.

- Hughes, M.J. and Kinnas, S.A., "An Analysis Method for a Ducted Propeller with Pre-swirl Stator Blades," Proceedings of *Propellers & Shafting '91 Symposium*, Society of Naval Architects and Marine Engineers, Virginia Beach, VA, pp. 15/1-15/8, 1991.

- Hughes, M.J. and Kinnas, S.A., "Unsteady Flows Around Multi-Component Integrated Propulsors," *Forum on Unsteady Flows, ASME Fluids Engineering Division*, Washington, DC, Vol. 157, pp. 21-31, 1993.

- Kinnas, S.A. and Fine, N.E., "A Nonlinear Boundary Element Method for the Analysis of Unsteady Propeller Sheet Cavitation," Proceedings of *Nineteenth Symposium on Naval Hydrodynamics,* Office of Naval Research, National Academy Press, pp. 717-737, 1994.

- Pyo, S. and Kinnas, S.A., "The Flow Adapted Grid (FLAG) Applied to the Analysis of Propeller Tip Flows," *Propellers & Shafting '94 Symposium*, Society of Naval Architects and Marine Engineers, Virginia Beach, VA, pp. 10/1-10/10, 1994.

- Kinnas, S.A., Mishima, S. and Savineau, C., "Application of Optimization Techniques to the Design of Cavitating Hydrofoils and Wings," *International Symposium on Cavitation*, Deauville, France, pp. 135-143, 1995.

- Brewer, W.H. and Kinnas, S.A., "Experimental and Computational Investigation of Sheet Cavitation on a Hydrofoil," *The 2nd Joint ASME/JSME Fluids Engineering Conference & ASME/EALA 6th International Conference on Laser Anemometry*, Hilton Head Island, SC, August 1995.

- Kinnas, S.A., Mishima, S. and Brewer, W.H., "Non-linear Analysis of Viscous Flow Around Cavitating Hydrofoils," Proceedings of *Twentieth Symposium on Naval Hydrodynamics*, Office of Naval Research, National Academy Press, pp. 446-465, 1996.

- Kinnas, S.A. and Gucun, B., "A High-Order BEM Based on the "Saw-tooth" Correction Application to the Structural Analysis of Cavitating Hydrofoils," *IABEM Workshop: Fundamental Solutions in Boundary Elements, Formulation and Integration*, Sevilla, Spain, June 1997.

- Kinnas, S.A., "A Low-Order BEM for Internal Flows - Application to the Flow Through Water-jet Inlet," *IABEM Workshop: Fundamental Solutions in Boundary Elements, Formulation and Integration*, Sevilla, Spain, June 1997.

- Kinnas, S.A. and Pyo, S., "Propeller Wake Alignment Models in Uniform and Inclined Inflow," *Propellers/Shafting '97 Symposium*, Society of Naval Architects and Marine Engineers Virginia Beach, VA, pp. 28/1-28/15, September 1997.

- Choi, J.-K. and Kinnas, S.A., "Numerical Propeller Tunnel," *Propellers/Shafting '97 Symposium*, Society of Naval Architects and Marine Engineers, Virginia Beach, VA, pp. 29/1-29/19, September 1997.

- Kimball, R.W., Choi, J.-K. and Kinnas, S.A., "Experimental and Numerical Study of Propeller Induced Tunnel Pressures," Ocean Engineering Division, *ASME Congress*, Dallas, TX, Vol. 14, pp. 149-165, November 1997.

- Griffin, P.E. and Kinnas, S.A., "Systematic Design Techniques for High-speed Propulsor Blades," Ocean Engineering Division, *ASME Congress*, Dallas, TX, Vol. 14, pp. 139-147, November 1997.

- Mueller, A.C. and Kinnas, S.A., "Cavitation Predictions Using a Panel Method," Ocean Engineering Division, *ASME Congress*, Dallas, TX, Vol. 14, pp. 127-137, November 1997.

- Kinnas, S.A., Lee, H. and Mueller, A.C., "Prediction of Propeller Blade Sheet and Developed Tip Vortex Cavitation," *Twenty Second Symposium on Naval Hydrodynamics*, pp. 206-222, National Academy Press, 1999.

- Hardjanto, F.A., Kinnas, S.A. and Roesset, J.M., "Boundary Element Method for the Simulation of Non-linear Surface Waves," *EM 1999, 13th Engineering Mechanics Division Conference*, American Society of Civil Engineers, Baltimore, MD, June 13-16, 1999.

- Hardjanto, F.A., Kinnas, S.A. and Roesset, J.M., "Numerical Simulation of Three-Dimensional Non-linear Water Waves," *Boundary Element Techniques International Conference*, London, UK, July 6-8, 1999.

- Kinnas, S.A., Choi, J.-K., Lee, H. and Young, J., "Numerical Cavitation Tunnel," *NCT'50; International Conference on Propeller Cavitation*, Newcastle, UK, April 3-5, 2000.

- Young, Y.L. and Kinnas, S.A., "Modeling of Unsteady Sheet Cavities on Hydrofoils and Propellers," *EM2000, 14th Engineering Mechanics Conference*, American Society of Civil Engineers, Austin, TX, May 21-24, 2000.

- Hardjanto, F.A., Kinnas, S.A. and Roesset, J.M., "Numerical Simulations of Wave and Floating-Body Interactions," *EM2000, 14th Engineering Mechanics Conference*, American Society of Civil Engineers, Austin, TX, May 21-24, 2000.

- Bal, S. and Kinnas, S.A., "A BEM for Cavitating Hydrofoils Under a Free Surface," *IABEM-2000 Symposium of the International Association for Boundary Element Methods*, pp.13-17, Brescia, Italy, July 4-7, 2000.

- Choi, J.-K. and Kinnas, S.A., "An Unsteady 3-D Euler Solver Coupled with a Cavitating Propeller Analysis Method," *Twenty-third Symposium on Naval Hydrodynamics*, Val de Reuil, France, September 17-22, 2000.

- Choi, J.-K. and Kinnas, S.A., "Non-axisymmetric Effective Wake Prediction by Using an Unsteady Three-Dimensional Euler Solver," *Propellers/Shafting 2000 Symposium*, Society of Naval Architects and Marine Engineers, Virginia Beach, VA, September 20-21, 2000.

- Young, Y.L. and Kinnas, S.A., "Prediction of Unsteady Performance of Surface-Piercing Propellers," *Propellers/Shafting 2000 Symposium*, Society of Naval Architects and Marine Engineers, Virginia Beach, VA, September 20-21, 2000.

- Krishnaswamy, P., Andersen, P. and Kinnas, S.A., "Re-entrant Jet Modelling for Partially Cavitating Two-dimensional Hydrofoils," *CAV 2001, 4th International Symposium on Cavitation*, Pasadena, CA, June 20-23, 2001.

- Lee, H. and Kinnas, S.A., "Modeling of Unsteady Blade Sheet and Developed Tip Vortex Cavitation," *CAV 2001, 4th International Symposium on Cavitation*, Pasadena, CA, June 20 23, 2001.

- Young, Y.L. and Kinnas, S.A., "Numerical Modeling of Supercavitating and Surface-piercing Propeller Flows," *CAV 2001, 4th International Symposium on Cavitation,* Pasadena, CA, June 20-23, 2001.

- Kinnas, S.A., Lee, H. and Young, Y.L., "Modeling of Unsteady Sheet Cavitation on Marine Propulsors," *9th International Symposium on Transport Phenomena and Dynamics of Rotating Machinery*, Honolulu, HI, February 10-14, 2002.

- Bal, S. and Kinnas, S.A., "An IBEM for cavitating hydrofoils inside numerical wave tunnel," *IABEM 2002 Symposium*, Austin, TX, May 28-31, 2002.

- Lee, H. and Kinnas, S.A., "Application of BEM in Unsteady Blade Sheet and Developed Tip Vortex Cavitation Prediction on Marine Propellers," *IABEM 2002 Symposium*, Austin, TX, May 28-31, 2002.

- Young, Y.L and Kinnas, S.A., "Application of BEM in the Modeling of Supercavitating and Surface-Piercing Propeller Flows," *IABEM 2002 Symposium*, Austin, TX, May 28-31, 2002.

- Young, Y.L and Kinnas, S.A., "A BEM Technique for the Modeling of Supercavitating and Surface-Piercing Propeller Flows," *24th Symposium on Naval Hydrodynamics*, Fukuoka, JAPAN, 8-13 July 2002.

- Kinnas, S.A., Young, Y.-L, Lee, H., Gu, H. and Natarajan, S., "Prediction of Cavitating Flow Around Single or Two-component Propulsors, Ducted Propellers and Rudders," *CFD2003: Computational Fluid Dynamics Technology in Ship Hydrodynamics*, pp. 117-135, London, UK, February 6-7, 2003.

- Kinnas, S.A., Yu, Y.-H., Lee, H. and Kakar, K., "Modeling of Oscillating Flow Past a Vertical Plate," *13th International Offshore and Polar Engineering Conference & Exhibition, ISOPE 2003*, Honolulu, HI, May 25-30, 2003.

- Ryu, S., Kim, M.-H., Kinnas, S.A. and Kang, J.-H., "Development of Web-based Numerical Wave Tank and Java Applets as an Advanced Tool for Teaching Wave Mechanics,"American Society for Engineering Education Annual Conference and Exposition, Nashville, TN, June 22-25, 2003.

- Kinnas, S.A., Natarajan, S., Lee, H., Karan, K. and Gupta, A., "Numerical Modeling of Podded Propulsors and Rudder Cavitation," *Propellers/Shafting 2003 Symposium*, Society of Naval Architects and Marine Engineers, Virginia Beach, VA, September 17-18, 2003.

- Gu, H. and Kinnas, S.A., "Modeling of Contra-Rotating and Ducted Propellers via Coupling of a Vortex-Lattice with a Finite Volume Method," *Propellers/Shafting 2003 Symposium*, Society of Naval Architects and Marine Engineers, Virginia Beach, VA, September 17-18, 2003.

- Young, Y.L. and Kinnas, S.A., "Numerical Analysis of Surface-Piercing Propellers," *Propellers/Shafting 2003 Symposium* , Society of Naval Architects and Marine Engineers, Virginia Beach, VA, September 17-18, 2003.

- Lee, H. and Kinnas, S.A. and Gu, H., Natarajan, S. *"Numerical Modeling of Rudder Sheet Cavitation Including Propeller/Rudder Interaction and the Effects of a Tunnel"*, Fifth International Symposium on Cavitation (CAV2003), Osaka, Japan, November 1-4, 2003.

- Kinnas, S.A., Sun, H. and Lee, H. *"Numerical Analysis of Flow Around the Cavitating CAV2003 Hydrofoil"*, Fifth International Symposium on Cavitation (CAV2003), Osaka, Japan, November 1-4, 2003.

- Young, Y.L., and Kinnas, S.A. *"Fluid and Structural Modeling of Cavitating Propeller Flows"*, Fifth International Symposium on Cavitation (CAV2003), Osaka, Japan, November 1-4, 2003.

- Lee, H. and Kinnas, S. A. *"A BEM for the Modeling of Unsteady Propeller Sheet Cavitation inside of a Cavitation Tunnel"*, IABEM 2004, May 24-26, Minneapolis, Minnesota.

- Kinnas, S.A. and Lee, H., and Gu, H., and Gupta, A." Prediction of Performance of Ducted and Podded Propellers," *25th Symposium on Naval Hydrodynamics,* August 8-13, 2004, St. John's, Newfoundland and Labrador, Canada.

- Yu, Y.-H., Kinnas, S.A., Vinayan, V., and Kacham B., "Modeling of Flow Around FPSO Hull Sections Subject to Roll Motions: Effect of Separated Flow around Bilge Keels," *The 15th International Offshore and Polar Engineering Conference (ISOPE)*, Seoul, Korea, June 19 24, 2005.

- Vinayan, V., Kinnas, S.A., and Yu, Y.-H., "Modeling of Flow Around FPSO Hull Sections Subject to Roll Motions: Effects of Non-linear Boundary Conditions," *24th International Conference on Offshore Mechanics and Arctic Engineering (OMAE)*, Halkidiki, Greece, June 12-16, 2005.

- Kinnas, S.A., Lee, H., and Gu, H., "Numerical Modeling of Ducted Propellers," *ASME Fluids Engineering Division Summer Meeting* , Houston, Texas, June 19-23, 2005.

- Kinnas, S.A., Yu, Y.-H., and Vinayan, V., "Prediction of Flows around FPSO Hulls in Roll Using an Unsteady Navier-Stokes Solver", *The 16th International Offshore and Polar Engineering Conference (ISOPE)*, San Francisco, California, May 28-June 2, 2006.

- Hu, H., Wright, S., and Kinnas, S.A., "Hydroplaning of Submarine Slides and the Influence of Hydrodynamic Stresses", *The 16th International Offshore and Polar Engineering Conference (ISOPE),* San Francisco, California, May 28-June 2, 2006.

- Kinnas, S. A., Lee, H. S., Mishra, B., He, L., Rhee, S.-H., and Balasubramanyam, S. "Hydrodynamic analysis of podded propellers", in *Propellers/Shafting '06 Symposium*, Williamsburg, VA. The Society of Naval Architects & Marine Engineers (SNAME), September 12-13, 2006

- Hwang, Y.-S., Sun, H., and Kinnas, S. A. "Prediction of Hull Pressure Fluctuations Induced by Single and Twin Propellers", in *Propellers/Shafting '06 Symposium*, Williamsburg, VA. The Society of Naval Architects & Marine Engineers (SNAME), September 12-13, 2006

- Lee, H. S. and Kinnas, S. A. "Prediction of cavitating performance of ducted propeller", in *CAV2006*: Sixth International Symposium on Cavitation, Wageningen, The Netherlands, September 11-15, 2006

- Sun, H. and Kinnas, S. A. "Simulation of sheet cavitation on propulsor blades using a viscous/inviscid interactive method", in *CAV2006*: Sixth International Symposium on Cavitation, Wageningen, The Netherlands, September 11-15, 2006

- Kinnas, S.A., Mohhamed, F., and Lee, H. "Propeller Tip Vortex/Rudder Interaction", *Twenty-sixth Symposium on Naval Hydrodynamics,* Rome, Italy, September 17-22, 2006

- 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*)

- Kinnas, S.A., Yu, Y.-H., and Vinayan V. "Numerical Methods for the Prediction of the Bilge Keel Effects on the Response of Ship-Shaped Hulls," Proceedings of the *26th International Conference on Offshore Mechanics and Arctic Engineering*, *OMAE2007*, San Diego, California, USA, June 10-15, 2007

- Kinnas, S.A., Lee, H.S., Michael, T.J., and Sun, H. "Prediction of Cavitating Watejet Propulsor Performance Using a Boundary Element Method," *9th International Conference on Numerical Ship Hydrodynamics*, Ann Arbor, Michigan, USA, August 5-8, 2007

- Kinnas, S.A., Lee, H.S., Sun, H., and He, L. "Performance Prediction of Single and Multi-component Propulsors Using Coupled Viscous/Inviscid Methods," *10th International Symposium on Practical Design of Ships and Other Floating Structures (PRADS07),* Houston, Texas, USA, October 1-5, 2007.

- Yu, Y.-H. and Kinnas, S.A., "Prediction of Hydrodynamic Performance for Various Ship-Shaped Hulls under Excessive Roll Motions Using an Unsteady Navier-Stokes Solver", *The 18th International Offshore and Polar Engineering Conference (ISOPE)*, July 6-11, 2008, Vancouver, BC, Canada.
- Vinayan, V. and Kinnas, S.A., "Numerical Modeling of Surface Piercing Hydrofoils and Propellers", *Twenty-seventh Symposium on Naval Hydrodynamics,* October 5-10, 2008, Seoul, Korea.

- Yu, Y.-H. and Kinnas, S.A., "Roll Response of Ship-shaped Hulls in Waves", *Proceedings of the 28th International Conference on Offshore Mechanics and Arctic Engineering (OMAE)*, May 31-June 5, 2009, Honolulu, Hawaii, USA

- Dhanak, M., Yeung, R., and Kinnas, S.A., "Impact of the NNRNE (National Naval Responsibility for Naval Engineering) program on ocean engineering education", *ASEE (American Society of Engineering Education) Conference*, June 15, 2009, Austin, Texas.

- Singh, S. and Kinnas, S.A., "Prediction of cavitating flow around 3-D straight/swept hydrofoils", *Proceedings of the 7th International Symposium on Cavitation, CAV09,* August 17-22, 2009, Ann Arbor, Michigan, USA

- Vinayan, V. and Kinnas, S.A., "A Boundary Element Method for the Strongly Nonlinear Analysis of Surface Piercing Hydrofoils;" *Proceedings of the 7th International Symposium on Cavitation,CAV09,* August 17-22, 2009, Ann Arbor, Michigan, USA.

- He, L. and Kinnas, S. A., "A Method for the Prediction of Rotor/Stator Interaction-Applications to 2-D Hydrofoils and Propeller", in *Propellers/Shafting '09 Symposium*, Williamsburg, VA, USA, The Society of Naval Architects & Marine Engineers (SNAME), September 15-16, 2009.

- Kinnas, S.A., Chang, S.-H., Yu, Y.-H., and He, L., "A Hybrid Viscous/Potential Flow Method for the Prediction of the Performance of Podded and Ducted Propellers", in *Propellers/Shafting '09 Symposium*, Williamsburg, VA, USA. The Society of Naval Architects & Marine Engineers (SNAME), September 15-16, 2009.

- Yu, Y.-H. and Kinnas, S.A. "Roll and Heave Response of Hull Sections of Variable Shapes in Waves," *Proceedings of 29th International Conference on Ocean, Offshore and Arctic Engineering (OMAE2010)*, Shanghai, China, June 6-11, 2010

- Kinnas, S.A., Xu, W., and Yu, Y.-H., "Computational Models for Prediction of Performance and Design of Tidal Turbines," *Proceedings of 29th International Conference on Ocean, Offshore and Arctic Engineering (OMAE2010)*, Shanghai, China, June 6-11, 2010

- Kinnas, S.A., Chang, S.-H., and Yu, Y.-H., "Prediction of Wetted and Cavitating Performance of Water-jets", *28th Symposium on Naval Hydrodynamics,* September 12-17, 2010, Pasadena, California, USA.

- Tian, Y. and Kinnas, S.A.,"Modeling of Leading Edge Vortex and its Effects on Propeller Performance", *2nd International Symposium on Marine Propulsors SMP'11*, Hamburg, Germany, June 15-17, 2011.

- Sharma, A., He, L., and Kinnas, S.A., "Numerical Modeling of a Hydrofoil or a Marine Propeller Undergoing Unsteady Motion", *2nd International Symposium on Marine Propulsors SMP'11*, Hamburg, Germany, June 15-17, 2011.

- Xu, W. and Kinnas, S.A., "Efficiency and Optimal Loading of Contra-rotating Marine Turbines," *30th International Conference on Ocean, Offshore and Arctic Engineering (OMAE2011)*,June 19-24, 2011, Rotterdam, The Netherlands.

- He, L., Xu, W., and Kinnas, S.A., "Numerical Methods for the Prediction of Unsteady Performance of Marine Propellers and Current Turbines",*21st International Offshore (Ocean) and Polar Engineering Conference*, June 19-24, Maui, Hawaii, USA.

- Kinnas, S.A., Chang, S.-H., Tian, Y., and Jeon, C.-H. (2012) "Steady and Unsteady Cavitating Performance of Ducted Propulsors",*22nd International Offshore (Ocean) and Polar Engineering Conference*, ISOPE'12, Rhodes, Greece, June.

- Han, L., Yu, X., ans Kinnas, S.A. (2012) "Experimental and Numerical Studies on Unsteady Flow Around a Circular Cylinder Subjected to Waves", *22nd International Offshore (Ocean) and Polar Engineering Conference*, Rhodes, Greece, June.

- Chang, S.-H. and Kinnas, S. A. (2012). "Numerical Method for the Analysis of Cavitating Water-jet Propulsion Systems," *8th Int. Symposium on Cavitation*, CAV2012, Singapore City, Singapore, August.

- Chang, S.-H. and Kinnas, S. A. (2012). "Numerical Simulation of Wetted and Cavitating Flows inside Water-jets." *29th Symposium on Naval Hydrodynamics*, Gothenburg, Sweden, August.

- Kinnas S. A., Yu, X. and Tian, Y. (2012). "Prediction of Propeller Performance under High Loading Conditions with Viscous/Inviscid Interaction and a New Wake Alignment Model." *29th Symposium on Naval Hydrodynamics,* Gothenburg, Sweden, August.

- Kinnas, S.A., Chang, S.-H., and Valsaraj, A., (2012) "A Panel Method for the Hydrodynamic Performance Prediction of a Water-jet and an Inducer", *Proceedings of the Propellers/Shafting 2012 Symposium*, Norfolk, VA, September.

- Kinnas, S.A., Jeon, C., and Tian, Y., (2012) "Hybrid Viscous/Potential Flow Method for the Prediction of the Wetted and Cavitating Performance of Ducted Propellers", *Proceedings of the Propellers/Shafting 2012 Symposium*, Norfolk, VA, September.

- Kinnas, S.A., Tian, Y., Jeon, C.-H., and Purohit, J.,(2013) "Prediction of the Unsteady Cavitating Performance of Ducted Propellers Subject to an Inclined Inflow", *3rd International Symposium on Marine Propulsors, smp13*, Launceston, Tasmania, Australia, May 5-8.

- Tian, Y. and Kinnas, S.A. (2013) "A Numerical Method for the Analysis of Unsteady Cavitating Rotor and Stator Interaction", *3rd International Symposium on Marine Propulsors, smp13,* Launceston, Tasmania, Australia, May 5-8.

- Stetson, P. and Kinnas, S.A., (2013) "PIV Measurements of Flow-filed Downstream of a Cylinder in Uniform flow and Comparisons with CFD", *32nd Conference on Ocean, Offshore and Arctic Engineering OMAE 2013*, Nantes, France, June 9-14.

- Kinnas, S.A. and Valsaraj, A., (2013) "Application of BEM for Internal Propulsor Flows", *BETEQ13, International Conference on Boundary Element and Meshless Techniques*, Paris, France, July 16-18.

- Tian, Y. and Kinnas, S.A., (2014) "Thruster and FPSO Hull Interaction", *33rd Conference on Ocean, Offshore and Arctic Engineering OMAE 2014*, June 8-13, 2014, San Francisco, CA, USA.

- Tian, Y. and Kinnas, S.A. (2015) "A Viscous Vorticity Method for Propeller Tip Flows and Leading Edge Vortex", *4th International Symposium on Marine Propulsors, smp'15*, Austin, Texas, USA, May 31-June 3, 2015.

- Su, Y. and Kinnas, S.A. (2015) "Prediction of Performance of Tip Loaded Propellers via a Panel Method", *4th International Symposium on Marine Propulsors, smp'15*, Austin, Texas, USA, May 31-June 3, 2015.

- Fan, H., Tian, Y., and Kinnas, S.A. (2015) "A Panel method for the Prediction of Performance of Ducted Propellers", *4th International Symposium on Marine Propulsors, smp'15*, Austin, Texas, USA, May 31-June 3, 2015

- Su, Y. and Kinnas, S.A., (2015) "Application of a Panel Method in Performance Prediction of Cavitating and Non-cavitating Tip Loaded Propellers", *9th International Symposium on Cavitation (CAV2015)*, Journal of Physics: Conference Series 656 (2015) 01214; IOP Publishing, doi:10.1088/1742-6596/656/1/0121404.

- Tian, Y. and Kinnas, S.A., (2015) "Prediction of Performance of a Cavitating Propeller in Oblique Inflow", *9th International Symposium on Cavitation (CAV2015),* Journal of Physics: Conference Series 656 (2015) 012073; IOP Publishing, doi:10.1088/1742-6596/656/1/012073

- Kinnas, S.A., Su, Y., Du, W., and Kim, S., (2016) "A Viscous/Inviscid Interactive Method applied to Ducted Propellers with Ducts of Sharp or Blunt Trailing Edge," *31st Symposium on Naval Hydrodynamics*, Monterey, California, USA, 11-16 September 2016.

- Su, Y. and Kinnas, S.A. (2016) "A Generalized Potential/RANS Interactive Method for the Prediction of Propulsor Performance," *SNAME (Society of Naval Architects and Marine Engineers) Maritime Convention*, November 1-5, 2016, Bellevue, Washington State, USA.

- Su, Y., Kinnas, S.A., and Jukola, H., "Application of a BEM/RANS Interactive Method to Contra-Rotating Propellers", *5th Symposium on Marine Propulsors, smp'17*, June 12-15, 2017, Espoo, Finland

- Su, Y, Kim, S., Du, W., and Kinnas, S.A., Grekula, M., Hallander, J. , and Li, D. "Prediction of the Propeller-induced Hull Pressure Fluctuation via a Potential-based Method: Study of the Rudder Effect and the Effect from Different Wake Alignment Methods", *5th Symposium on Marine Propulsors, smp'17*, June 12-15, 2017, Espoo, Finland

- Kim, S., Du, W., and Kinnas, S.A., "Panel method for ducted propellers with sharp and round trailing edge duct with fully aligned wake on blade and duct", *5th Symposium on Marine Propulsors, smp'17*, June 12-15, 2017, Espoo, Finland

- Su, Y., Kim, S., and Kinnas, S.A., (2018) ``Application of a BEM/RANS Iterative Method to Axial Tidal Turbine Interaction Problems," 23rd Offshore Symposium, SNAME (Society of Naval Architects and Marine Engineers), Houston, Texas, USA, Feb 14, 2018

- Wu, C., Xing, L., and Kinnas, S.A., (2018) ``A VIScous Vorticity Equation (VISVE) Method Applied to 2-D and 3-D Hydrofoils in Both Forward and Backing Conditions," 23rd Offshore Symposium, SNAME (Society of Naval Architects and Marine Engineers), Houston, Texas, USA, Feb 14, 2018

- Kim, S., Su, Y., and Kinnas, S.A., (2018) "Prediction of the Propeller-induced Hull Pressure Fluctuation via a Potential-based Method: Study of the Influence of Cavitation and Different Wake Alignment Schemes", *10th International Symposium on Cavitation (CAV2018)*, Baltimore, Maryland, USA, May 14-16, 2018.

- Du, W. and Kinnas, S.A., (2018) "Coupling a Numerical Optimization Technique with a Panel Method or a Vortex Lattice Method to Design Cavitating Propellers in Non-Uniform Inflows", *10th International Symposium on Cavitation (CAV2018)*, Baltimore, Maryland, USA, May 14-16, 2018.

- Xing, L., Wu, C., and Kinnas, S.A., (2018) "VISVE, a Vorticity Based Model Applied to Cavitating Flow around a 2-D Hydrofoil", *10th International Symposium on Cavitation (CAV2018)*, Baltimore, Maryland, USA, May 14-16, 2018.

- Su, Y. and Kinnas, S.A., (2018) "A Time-Accurate BEM/URANS Interactive Method for Predicting Propeller Performance Considering Unsteady Hull/Propeller/Rudder Interaction," *32nd Symposium on Naval Hydrodynamics*, Hamburg, Germany, August 5-10, 2018.

- Wu, C. and Kinnas, S.A., (2019) ``A Distributed Vorticity Model for Flow Past a 3-D Hydrofoil," *24th Offshore Symposium*, SNAME (Society of Naval Architects and Marine Engineers), Houston, Texas, USA, February 20, 2019.

- Du, W. and Kinnas, S.A., (2019) ``Applying 3-D Viscous/Inviscid Intreaction Method to Predict Flow Around Wings and Propellers," *24th Offshore Symposium,* SNAME (Society of Naval Architects and Marine Engineers), Houston, Texas, USA, February 20, 2019.

- Du, W. and Kinnas, S.A., "A 3-D Flow Separation Model for Open Propellers with Blunt Trailing Edges", *6th Symposium on Marine Propulsors, smp'19*, May 26-30, 2019, Rome, Italy.

- Kim, S. and Kinnas, S.A., "Prediction of Unsteady Developed Tip Vortex Cavitation and its Effects on the Induced Hull Pressures", *6th Symposium on Marine Propulsors, smp'19*, May 26-30, 2019, Rome, Italy.

- Wu, C. and Kinnas, S.A., "A 3-D VIScous Vorticity Equation (VISVE) Method Applied to Flow Past a Hydrofoil of Elliptical Planform and a Propeller", *6th Symposium on Marine Propulsors, smp'19*, May 26-30, 2019, Rome, Italy.

- Yao, H. and Kinnas, S.A. (2019) "Coupling Viscous Vorticity Equation (VISVE) Method with OpenFOAM to Predict Turbulent Flow around 2-D Hydrofoils and Cylinders", *29th International Ocean and Polar Engineering Conference, ISOPE-2019*, June 16-21, 2019, Honolulu, Hawaii, USA.

- Du, W. and Kinnas, S.A. (2019) "Optimization Design and Analysis of Marine Ducted Propellers by RANS/Potential Flow Coupling Method", *29th International Ocean and Polar Engineering Conference, ISOPE-2019*, June 16-21, 2019, Honolulu, Hawaii, USA.

- Du, W., Pham, H., and Kinnas, S.A. (2019) "Design by Optimization and Flume Test of Ducted Horizontal Axis Marine Current Turbines", *29th International Ocean and Polar Engineering Conference, ISOPE-2019*, June 16-21, 2019, Honolulu, Hawaii, USA.

- Wu, C., and Kinnas, S. A., (2020) "Flow Past a Rotating Cylinder Predicted by a Vorticity Method," *25th Offshore Symposium,* the Society of Naval Architects & Marine Engineers (SNAME), Houston, Texas, USA, February 27, 2020

- Cha, K., Kim, S., and Kinnas, S. A., (2020) "Coupling of Vortex-Lattice Method with RANS for the Prediction of Open or Ducted Propeller/Axi-symmetric Hull Interaction," *25th Offshore Symposium*, the Society of Naval Architects & Marine Engineers (SNAME), Houston, Texas, USA, February 27, 2020

- Tsao, W.-H. and Kinnas, S. A., (2020) "Numerical Simulation of Fluid Sloshing in a Rolling Tank," *25th Offshore Symposium*, the Society of Naval Architects & Marine Engineers (SNAME), Houston, Texas, USA, February 27, 2020

- Wu, C. and Kinnas, S.A., (2020) "Turbulent Flow Past a 3-D Hydrofoil Predicted by a Distributed Vorticity Method," Proceedings of the ASME *39th International Conference on Ocean, Offshore and Arctic Engineering, OMAE2020*, June 28-July 3, 2020, Fort Lauderdale, FL, USA (held online August 3-7, 2020, due to Covid'19)

- Tsao, W.-H. and Kinnas, S.A., (2020) "Local Study of Jet of a Fluid Sloshing inside a rolling Tank," Proceedings of the ASME *39th International Conference on Ocean, Offshore and Arctic Engineering, OMAE2020*, June 28-July 3, 2020, Fort Lauderdale, Florida, USA (held online August 3-7, 2020, due to Covid'19)

- Kim, S. and Kinnas, S.A., (2020) "Prediction of Performance of Tip Loaded Propeller and its Induced Pressures on the Hull," Proceedings of the ASME *39th International Conference on Ocean, Offshore and Arctic Engineering, OMAE2020*, June 28-July 3, 2020, Fort Lauderdale, Florida, USA (held online August 3-7, 2020, due to Covid'19)

- Wu, C. and Kinnas, S.A., (2020) "A Viscous Vorticity Method for Predicting Propeller Performance", In Proceedings of the *33rd Symposium on Naval Hydrodynamics, 33rd SNH*, October 18-October 23, 2020, Osaka, Japan

- Kim, S. and Kinnas, S.A., (2021) "Prediction of Developed Tip Vortex Cavitation via a Low Order Panel Method," Proceedings of the *11th International Symposium on Cavitation, CAV2021*, May 10-13, 2021, Daejon, Korea

- Iliopoulos, K. and Kinnas, S.A., (2021) "VISVE, a Vorticity Based Model Applied to 2-D Hydrofoils in Cavitating Conditions," Proceedings of the *11th International Symposium on Cavitation, CAV2021*, May 10-13, 2021, Daejon, Korea

- Kinnas, S.A., Cha, K. and Kim, S., (2021) "Comprehensive Design Method for Open or Ducted Propellers for Underwater Vehicles," *SNAME Maritime Convention, SMC2021*, October 25-29, 2021, Providence, Rhode Island, USA.

- Kim, S., Wu, T. S., and Kinnas, S. A., (2022) "Design and Analysis of Tidal Turbines via a Nonlinear Optimization Technique Coupled with a BEM," *27th Offshore Symposium*, SNAME, February 22, 2022, Houston, Texas, USA.

- You, R., Kinnas, S. A., and Tiwari, A. S., (2022) "Viscous Vorticity Equation (VISVE) Model Applied To Oscillatory Turbulent Flow Around A Cylinder," *27th Offshore Symposium*, SNAME, February 22, 2022, Houston, Texas, USA

- Cha, K. and Kinnas, S. A. (2022) "Application of a Comprehensive Design Method to Counter-rotating Propellers," *27th Offshore Symposium*, SNAME, February 22, 2022, Houston, Texas, USA

- Kim, S. and Kinnas, S.A. (2022) "Prediction of Developed Tip Vortex Cavitation and Its Induced Hull Pressures via a Boundary Element Method," *34th Symposium on Naval Hydrodynamics*, Washington, D.C., USA, June 26-July 1, 2022.

- You, R. and Kinnas, S.A. (2022) "A Viscous Vorticity Method for Predicting Lifting Surface Performance in Turbulent Flow Using a Two-Equation Turbulence Model," *34th Symposium on Naval Hydrodynamics*, Washington, D.C., USA, June 26-July 1, 2022.

- Kim, S., Kinnas, S.A., Grebstad, R.T. and Johannessen, J. (2022) "Hydrodynamic Analysis of a Triple Thruster Unit via a BEM/RANS Interactive Method," *ASME 2022 41st International Conference on Ocean, Offshore and Arctic Engineering, OMAE2022*, June 5-10, 2022, Hamburg, Germany.