

Bibliography
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Prof. Lee has published over 200 peer-reviewed journal articles (Google Scholar citation > 26,000), with more than 90 (name in bold letters) as first author or authored by advised graduate students or postdocs (marked with *). These publications are separated into eight major subject areas (see details below), which are: 1. Fundamentals; 2. Theory and estimation of water transparency (Secchi disk depth); 3. Inversion and applications of IOPs; 4. Remote sensing of primary production; 5. Remote sensing of optically shallow waters; 6. Measurement method regarding radiance or irradiance; 7. Sensor specifics on ocean color remote sensing; and 8. Ocean color remote sensing in general. Publications in conference proceedings are not included.

Subject-1: Fundamentals and forward modeling

1. Chen, L.*, **Z. Lee**, G. Lin, Y. Wang, J. Wang, W. Lai. 2022. Experimental Evaluation of Temperature Dependence of Pure Water Absorption Coefficient in Near-Infrared Domain. *Acta Optica Sinica*, 42(18): 1801007.
2. **Lee, Z.**, J. Tang. 2022. The Two Faces of “Case-1” Water. *Journal of Remote Sensing*. Vol. 2022, Article ID 9767452.
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4. **Lee, Z.**, S. Shang, Y. Li, K. Luis, M. Dai, Y. Wang. 2021. Three-dimensional variation of light quality in the upper water column revealed with a single parameter. *IEEE Transactions on Geoscience and Remote Sensing*, 60, 1-10.
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6. **Lee, Z.**, S. Shang, R. Stavn. 2018. AOPs are not additive: On the biogeo-optical modeling of the diffuse attenuation coefficient. *Frontiers in Marine Science*, 5, Article 8.
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11. **Lee, Z.** 2009. KPAR: An optical property associated with ambiguous values. *Journal of Lake Sciences*, 21, 159-164.
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13. **Lee, Z.**, K.P. Du, R. Arnone. 2005. A model for the diffuse attenuation coefficient of downwelling irradiance. *Journal of Geophysical Research - Oceans*, 110, C02016.
14. **Lee, Z.**, K.L. Carder, K.P. Du. 2004. Effects of molecular and particle scatterings on the model parameter for remote-sensing reflectance. *Applied Optics*, 43, 4957-4964.

15. **Lee, Z.**, K.L. Carder, S.K. Hawes, R.G. Steward, T.G. Peacock, C.O. Davis. 1994. Model for the interpretation of hyperspectral remote-sensing reflectance. *Applied Optics*, 33, 5721-5732.

Subject-2: Theory of water transparency (Secchi disk depth) and its remote sensing

1. Wei, J., M. Wang, L. Jiang, Z. Lee, R. Kirby, K. Mikelsons, G. Lin. 2025. Satellite observations of water transparency from VIIRS in global aquatic ecosystems. *Remote Sensing of Environment*, 330, 114981.
2. Kahru, M., Z. Lee, M. D. Ohman. 2023. Multidecadal changes in ocean transparency: Decrease in a coastal upwelling region and increase offshore. *Limnology and Oceanography*, 68, 1546-1556.
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Subject-3: Inversion algorithm for IOPs and their applications

a) Inversion algorithm

1. Zhang, Y., Yu, X., Z. Lee, S. Shang, H. Qiao, G. Lin, W. Lai. 2024. Performance of two semi-analytical algorithms in deriving water inherent optical properties in the Southern Ocean. *Optics Express*, 32, 15741-15759.
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b) Application of remotely sensed IOPs

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Subject-4: Remote sensing of primary production

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Subject-5: Remote sensing of optically shallow environments

1. Ma, Y., T. Han, E. Wang, Z. Lee, S. Prasad, G. W. Vosaki, W. Cao, D. Li, J. Wang, X. Lou, H. Zhang. 2025. A practical and efficient model for benthic habitat parameters retrieval in optically shallow

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Subject-6: Measurement method and data processing of radiance or irradiance

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b) Refinement of atmospheric correction

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