



## Snow H. Tseng 曾雪峰教授

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*Ph.D. in EE, Northwestern University*

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### Research Topics:

1. Determine the microscopic origin of macroscopic scattered light of tissue optics
  2. Explore new possibilities of nanophotonics and novel optical material using FDTD, PSTD, and Monte Carlo simulations
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### Representative Publications:

1. S. H. Tseng and Boyeh Huang, "Comparing Monte Carlo simulation and pseudospectral time-domain numerical solutions of Maxwell's equations of light scattering by a macroscopic random medium," *Applied Physics Letters*, 2007. **91**(051114), DOI: 10.1063/1.2767777
  2. S. H. Tseng, A. Taflove, D. Maitland, V. Backman, "PSTD Simulations of Multiple Light Scattering in 3-D Macroscopic Random Media," *Radio Science*, **41**, RS4009, doi:10.1029/2005RS003408, July 25<sup>th</sup>, 2006.
  3. S. H. Tseng, A. Taflove, D. Maitland, V. Backman, J. T. Walsh, "Extracting Geometrical Information of Closely Packed Random Media from Multiply Scattered Light via a Cross-Correlation Analysis," *IEEE Antennas and Wireless Propagation Letters*, 2006. **5**: pp. 91-94.
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### Research projects currently being pursued in our lab:

1. Phase conjugate mirror
2. Nanojet
3. Negative refractive lens
4. Surface plasmon

