

Publications of Habib Ammari

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Monographs

1. H. Ammari, B. Fitzpatrick, H. Kang, M. Ruiz, S. Yu, and H. Zhang, Mathematical and Computational Methods in Photonics and Phononics. *Mathematical Surveys and Monographs*, Volume 235, American Mathematical Society, Providence, 2018, 509 pages.
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4. H. Ammari, J. Garnier, W. Jing, H. Kang, M. Lim, K. Sølna, and H. Wang, Mathematical and Statistical Methods for Multistatic Imaging. *Lecture Notes in Mathematics*, Volume 2098, Springer-Verlag, Berlin, 2013, 361 pages.
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Edited books

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5. H. Ammari, J. Garnier, H. Kang, and K. Sølna, *Mathematical and Statistical Methods for Imaging*. *Contemporary Mathematics*, Volume 548, American Mathematical Society, Providence, 2011.
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7. H. Ammari, *Mathematical Modeling in Biomedical Imaging I: Electrical and Ultrasound Tomographies, Anomaly Detection, and Brain Imaging*. *Lecture Notes in Mathematics: Mathematical Biosciences Subseries*, Volume 1983, Springer-Verlag, Berlin, 2009.
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10. H. Ammari, H. Kang, *Inverse Problems, Multi-Scale Analysis, and Homogenization*. *Contemporary Mathematics*, Volume 408, American Mathematical Society, Providence, 2006.

Papers in peer-reviewed journals

1. H. Ammari, B. Li, and J. Zou, *Mathematical analysis of electromagnetic scattering by dielectric nanoparticles with high refractive indices*. *Transactions of the American Mathematical Society*, 376 (2023), no. 1, 39-90.
2. H. Ammari, Y. Chow, H. Liu and M. Sunkula, *Quantum integral systems and concentration of plasmon resonance*. To appear in *Journal of the European Mathematical Society*.
3. P. Liu and H. Ammari, *Nearly optimal resolution estimate for the two-dimensional super-resolution and a new algorithm for direction of arrival estimation with uniform rectangular array*. To appear in *Foundations of Computational Mathematics*.
4. P. Liu and H. Ammari, *Dynamic super-resolution in particle tracking problems*. To appear in *Journal of Applied and Computational Harmonic Analysis*.
5. H. Ammari, J. Cao, and X. Zeng, *Transmission properties of space-time modulated metamaterials*. To appear in *Studies in Applied Mathematics*, DOI: 10.1111/sapm.12549.
6. F. Feppon, Z. Cheng, and H. Ammari, *Subwavelength resonances in 1D high-contrast acoustic media*. To appear in *SIAM Journal on Applied Mathematics*.

7. F. Feppon and H. Ammari, Homogenization of sound-absorbing and high-contrast acoustic metamaterials in subcritical regimes. To appear in *ESAIM: Mathematical Modelling and Numerical Analysis*.
8. H. Ammari and B. Davies, Asymptotic links between signal processing, acoustic metamaterials and biology. To appear in *SIAM Journal on Imaging Sciences*.
9. H. Ammari, E.O. Hiltunen, and S. Yu, Subwavelength guided modes for acoustic waves in bubbly crystals with a line defect. *Journal of the European Mathematical Society*, 24 (2022), no. 7, 2279-2313.
10. H. Ammari, B. Davies, and E.O. Hiltunen, Robust edge modes in dislocated systems of subwavelength resonators. *Journal of the London Mathematical Society*, 106 (2022), no. 3, 2075-2135.
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Book contributions

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