

List of Publications

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Submitted

- E. BLÅSTEN, H. LIU, J. XIAO: *On an electromagnetic problem in a corner and its applications*, [arXiv:1901.00581](https://arxiv.org/abs/1901.00581).
- E. BLÅSTEN, H. LI, H. LIU, Y. WANG: *Localization and geometrization in plasmon resonances and geometric structures of Neumann-Poincaré eigenfunctions*, [arXiv:1809.08533](https://arxiv.org/abs/1809.08533).
- E. BLÅSTEN, E. V. VESALAINEN: *Non-Scattering Energies and Transmission Eigenvalues in H^n* , [arXiv:1809.04426](https://arxiv.org/abs/1809.04426).
- E. BLÅSTEN, H. LIU: *Scattering by curvatures, radiationless sources, transmission eigenfunctions and inverse scattering problems*, [arXiv:1808.01425](https://arxiv.org/abs/1808.01425).
- E. BLÅSTEN, H. LIU: *Recovering piecewise constant refractive indices by a single far-field pattern*, [arXiv:1705.00815](https://arxiv.org/abs/1705.00815).
- E. BLÅSTEN, L. TZOU, J. WANG: *Uniqueness for the inverse boundary value problem with singular potentials in 2D*, [arXiv:1704.06397](https://arxiv.org/abs/1704.06397).
- E. BLÅSTEN, H. LIU: *On corners scattering stably, nearly non-scattering interrogating waves, and stable shape determination by a single far-field pattern*, [arXiv:1611.03647](https://arxiv.org/abs/1611.03647).

Accepted in peer-reviewed journals

10. E. BLÅSTEN: *Nonradiating sources and transmission eigenfunctions vanish at corners and edges*, *SIAM J. Math. Anal.*, 50, 6 (2018), 6255–6270, [URL](#).
9. F. ZOUARI, E. BLÅSTEN, M. LOUATI, M. S. GHIDAoui: *Internal pipe area reconstruction as a tool for blockage detection*, *Journal of Hydraulic Engineering*, ASCE, accepted 2018.
8. E. BLÅSTEN, Y.-H. LIN: *Radiating and non-radiating sources in elasticity*, *Inverse Problems*, (2018), *Inverse Problems*, 35, 1 (2019), 015005, [URL](#).
7. E. BLÅSTEN: *Well-posedness of the Goursat problem and stability for point source inverse backscattering*, *Inverse Problems*, 33, 12 (2017), 125003, [URL](#).
6. E. BLÅSTEN, H. LIU: *On vanishing near corners of transmission eigenfunctions*, *Journal of Functional Analysis*, 273, 11 (2017), 3616–3632, [URL](#).
5. E. BLÅSTEN, X. LI, H. LIU, Y. WANG: *On vanishing and localizing of transmission eigenfunctions near singular points: A numerical study*, *Inverse Problems*, 33, 10 (2017), 105001, [URL](#).
4. E. BLÅSTEN, J. SYLVESTER: *Translation-invariant estimates for operators with simple characteristics*, *Journal of Differential Equations*, 263, 9 (2017), 5656–5695, [URL](#).
3. E. BLÅSTEN, O. YU. IMANUVILOV, M. YAMAMOTO: *Stability and uniqueness for a two-dimensional inverse boundary value problem for less regular potentials*, *Inverse Problems and Imaging*, 9, 3 (2015), 709–723, [URL](#).

2. E. BLÅSTEN, L. PÄIVÄRINTA, J. SYLVESTER: *Corners Always Scatter*, Communications in Mathematical Physics, 331, 2 (2014), 725–753, [URL](#).
1. E. BLÅSTEN, L. PÄIVÄRINTA: *Completeness of generalized transmission eigenstates*, Inverse Problems, 29, 10 (2013), 104002, [URL](#).

Conference Proceedings

1. F. ZOUARI, M. LOUATI, E. BLÅSTEN, M. S. GHIDAOU: *Multiple defects detection and characterization in pipes*, 13th International Conference on PRESSURE SURGES, Bordeaux, France, 14.–16. November 2018.

Books and theses

3. E. BLÅSTEN: *On the Gel'Fand-Calderón inverse problem in two dimensions*, Doctoral thesis, University of Helsinki, Faculty of Science, Department of Mathematics and Statistics, 2013, [URL](#).
2. E. BLÅSTEN: *The Inverse Problem of the Schrödinger Equation in the Plane: A Dissection of Bukhgeim's Result*, Licentiate thesis, University of Helsinki, Faculty of Science, Department of Mathematics and Statistics, 2010.
1. E. BLÅSTEN: *Distributioteorian alkeet ja sovellutuksia*, Master's thesis, University of Helsinki, Faculty of Science, Department of Mathematics and Statistics, 2008.

Other publications

2. E. BLÅSTEN, H. LIU, *Addendum to: "On vanishing near corners of transmission eigenfunctions"*, [arXiv:1710.08089](#).
1. E. BLÅSTEN, *Matematiikkaa Venäjällä*, Solmu: matematiikkalehti, 3 (2007), [URL](#).