

# 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. 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).

## Accepted in peer-reviewed journals

16. E. BLÅSTEN, E. V. VESALAINEN: *Non-Scattering Energies and Transmission Eigenvalues in  $H^n$* , Ann. Acad. Sci. Fenn. M., 45, 1 (2020), [URL](#).
15. E. BLÅSTEN, H. LI, H. LIU, Y. WANG: *Localization and geometrization in plasmon resonances and geometric structures of Neumann-Poincaré eigenfunctions*, ESAIM-M2AN, accepted 2019, [URL](#).
14. E. BLÅSTEN, L. TZOU, J. WANG: *Uniqueness for the inverse boundary value problem with singular potentials in 2D*, Math. Z., in press 2019, [URL](#).
13. F. ZOUARI, M. LOUATI, S. MENICONI, E. BLÅSTEN, M. S. GHIDAOU, B. BRUNONE: *Experimental verification of the accuracy and robustness of Area Reconstruction Method for Pressurized Water Pipe System*. Journal of Hydraulic Engineering, ASCE, 146, 3 (2020), [URL](#).
12. E. BLÅSTEN, F. ZOUARI, M. LOUATI, M. S. GHIDAOU: *Blockage detection in networks: the area reconstruction method*, Mathematics in Engineering, 1, 4 (2019), [URL](#).
11. E. BLÅSTEN, H. LIU: *On corners scattering stably and stable shape determination by a single far-field pattern*, Indiana Univ. Math. J., accepted 2019, [arXiv:1611.03647](https://arxiv.org/abs/1611.03647).
10. F. ZOUARI, E. BLÅSTEN, M. LOUATI, M. S. GHIDAOU: *Internal pipe area reconstruction as a tool for blockage detection*, Journal of Hydraulic Engineering, ASCE, 145, 6 (2019), [URL](#).
9. E. BLÅSTEN, Y.-H. LIN: *Radiating and non-radiating sources in elasticity*, Inverse Problems, (2018), Inverse Problems, 35, 1 (2019), 015005, [URL](#).
8. E. BLÅSTEN: *Nonradiating sources and transmission eigenfunctions vanish at corners and edges*, SIAM J. Math. Anal., 50, 6 (2018), 6255–6270, [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](#).