

## Ari Laptev

### PUBLICATIONS

#### Journals

129. (jointly with R.Frank and B.Helffer), Inequalities between Dirichlet and Neumann eigenvalues on Carnot groups, accepted by PAFA.
128. (jointly with R.Frank, Th.Hoffmann-Ostenhof and J.P.Solovej), *Hardy inequalities for large fermionic systems*, J. Spectr. Theory **14**, (2) (2024) 805-835.
127. (jointly with C.Cazacu, D.Krejčířik and N.Lam), *Hardy inequalities for magnetic  $p$ -Laplacians*, Nonlinearity, **37**, (3) (2024), 27p. ([doi.org/10.1088/1361-6544/ad1aee](https://doi.org/10.1088/1361-6544/ad1aee)).
126. (jointly with A.Ilyin and T.Weinmann), *Lieb–Thirring mnequalities on Manifolds with constant negative curvature*, JGA, 34:62 (2024), 1-17 ([doi.org/10.1007/s12220-023-01506-4](https://doi.org/10.1007/s12220-023-01506-4)).
125. (Jointly with R.L. Frank and Larry Read), *Weighted CLR type bounds in two dimensions*, Transactions of the American Mathematical Society, **377**, (5) (2024), 3357-3371. ([doi.org/10.1090/tran/9124](https://doi.org/10.1090/tran/9124)).
124. (jointly with Th. Hoffmann-Ostenhof and I. Shcherbakov), *Hardy and Sobolev inequalities on antisymmetric functions*, Bull. Math. Sci. **14**, (1) (2024), 18 p. ([doi.org/10.1142/S1664360723500108](https://doi.org/10.1142/S1664360723500108)).
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121. (jointly with O. Safronov), *Absolutely continuous spectrum of a typical Schrödinger operator with an operator valued potential*, St. Petersburg. Math. J. **35**, (1) (2024), 171—183.
120. (jointly with D.Krejčířik and F.Štampach), *Spectral enclosures and stability for non-self-adjoint discrete Schrödinger operators on the half-line*, Bulletin of LMS, **54**, (6) (2022), 2379 – 2403 ([doi.org/10.1112/blms.12700](https://doi.org/10.1112/blms.12700)).
119. (jointly with R.Frank and T.Weidl), *An improved one-dimensional Hardy inequality*, Journal of Mathematical Sciences, **268** (3) (2022), 323-342, (DOI 10.1007/s10958-022-06199-8).
118. (jointly with L.Reed and L.Schimmer), *Calogero type bounds in two dimensions*, ARMA, **245**, (3), (2022), 1491-1505.

117. (jointly with L.Schimmer), *A sharp Lieb--Thirring inequality for functional difference operators*, SIGMA 17 (2021), 105, 10 pages.
116. (jointly with M.Loss and L.Schimmer), *On a conjecture by Hundertmark and Simon*, Annales Henri Poincaré, **23** (2022), 4057-4067 (DOI 10.1007/s00023-022-01169-x).
115. (jointly with D.Guzu and L.Kapitanski), *Hardy inequalities for discrete magnetic Dirichlet forms*, Pure and Applied Functional Analysis Pure Appl. Funct. Anal., **7** (2) (2022) 593-600.
114. (jointly with Th.Hoffmann-Ostenhof), *Hardy inequality for antisymmetric functions*, Funktsional. Anal. i Prilozhen., **55** (2), (2021), 55-64.
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111. (jointly with D.Bonheure, J.Dolbeault, M.J.Esteban and M.Loss), *Inequalities involving Aharonov-Bohm magnetic potentials in dimensions 2 and 3*, Reviews in Mathematical Physics, **33**: 2150006 (2021), 1–29.
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109. (jointly with L.Fanelli, D.Krejcirik and L.Vega) *On the improvement of the Hardy inequality due to singular magnetic fields*, CPDE, **45** (9) (2020), 1-11.
108. (jointly with F. Ferrulli), *Complex eigenvalue bounds for a Schrödinger operator on the half line*, Rend. Lincei Mat. Appl. **31** (2020), 1–13.
107. (jointly with D. Guzu and Th. Hoffmann-Ostenhof), *On a Class of Sharp Multiplicative Hardy Inequalities*, St. Petersburg Math. J., **32**:3 (2020), 180-190.
106. (jointly with O.Ibrogimov and D.Krejcirik), *Sharp bounds for eigenvalues of biharmonic operators with complex potentials in low dimensions*, Mathematische Nachrichten, **294** (2021), 1333–1349. <https://doi.org/10.1002/mana.202000196>.
105. (jointly with D.Bonheure, J.Dolbeault, M.J.Esteban and M.Loss), *Symmetry Results in Two-Dimensional Inequalities for Aharonov–Bohm Magnetic Fields*, CMP, **375** (2020), 2071--2087. DOI 10.1007/s00220-019-03560-y.
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103. (jointly with A.Ilyin and S.Zelik), *On Lieb-Thirring constant on the torus*, Mat. Zametki, **106** (6) (2019), 946-950.

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## Book

(jointly with R.Frank and T.Weidl), *Schrödinger operators: Eigenvalues and Lieb-Thirring inequalities*, Cambridge University Press (2022), 507p.

## Books edited

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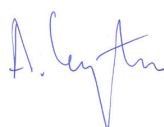
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