# CURRICULUM VITAE

Leonid B. Golinskii                                   Date of birth: December 9, 1952
Leading Research Fellow,                        Citizenship: Ukraine
B. Verkin Institute for Low Temperature
Physics & Engineering, Ukraine Acad. of Sciences
47 Nauky ave., Kharkiv 61103, Ukraine

## EDUCATION

– Habilitation in mathematical analysis from the B. Verkin Institute for Low Temperature Physics & Engineering, Kharkiv, Ukraine, 2003.

   **Habilitation title:** Orthogonal polynomials on the unit circle, Szegö difference equations and unitary Hessenberg matrices.

– Ph. D. in probability theory and mathematical statistics from Steklov Math. Institute, Russian Acad. of Sci.(St. Petersburg Dept), 1986.

– M. Sc. Kharkiv National University, Dept. of Math., graduated in 1974.

## PROFESSIONAL EXPERIENCE, POSITIONS HELD:

• Leading Research Fellow, B. Verkin Institute for Low Temperature Physics, Ukraine Acad. of Sci., Kharkiv, 2008 - present time.

• Senior Research Fellow, B. Verkin Institute for Low Temperature Physics, Ukraine Acad. of Sci., Kharkiv, 1988 - 2008.

• Junior Research Fellow, B. Verkin Institute for Low Temperature Physics, Ukraine Acad. of Sci., Kharkiv, 1977 - 1988.

• Visiting Associate Professor, Ohio State University (Columbus, OH), 1996-1997, 1998-1999, 2001.

## TEACHING EXPERIENCE, COURSES GIVEN WITHIN LAST TEN YEARS:

– Kharkiv National University: Complex Analysis, Functional Analysis, Probability Theory.

   Graduate Courses: Orthogonal Polynomials and Applications, Spectral Theory of Stationary Random Processes, Hardy Classes and Applications.

### AREAS OF RESEARCH INTEREST

– *Complex analysis and Potential theory* (including Blaschke type conditions for analytic and subharmonic functions and applications, bounds for Green's functions, model spaces, orthogonal polynomials and their applications).

– *Operator theory* (including spectral theory of non-self-adjoint Jacobi and Schrödinger operators, Toeplitz operators, spectral theory of infinite graphs, perturbation theory with applications to orthogonal polynomials).

– *Harmonic analysis* (including multivariate positive definite functions, Riesz sequences of translates and exponential functions, methods of operator theory in sampling and interpolation problems).

### ACTIVITIES AND AWARDS

Member of the Editorial Board, Journal of Approximation Theory.
M. Ostrogradsky prize of the Ukrainian National Academy of Sciences, 2015.
The Ukrainian State Prize in Science and Technology, 2020.

### LIST OF SELECTED RECENT PUBLICATIONS

1. On zeros of analytic functions satisfying non-radial growth conditions (with A. Borichev and S. Kupin), Rev. Mat. Iberoam., **34**, no. 3 (2018), 1153–1176.

2. Extreme points in the isometric embedding problem for model spaces, Journal d'Analyse Mathématique, **141** no. 2 (2020), 441–456.

3. Orthogonal Polynomials on the Unit Circle, In: Encyclopedia of Special Functions, The Askey–Bateman Project, v.1: Univariate Orthogonal Polynomials (Editors: M.E.H. Ismail, W. Van Assche), Cambridge University Press, Cambridge 2020, 199–241.

4. Spectra of infinite graphs: two methods of computation, Operators and Matrices, **15** no. 3 (2021), 985–1030.

5. Lieb–Thirring inequalities for an effective Hamiltonian of bilayer graphene (with P. Briet, J.-C. Cuenin, S. Kupin), Journal of Spectral Theory, **11** no. 3 (2021), 1145–1178.

6. Volterra-Type Discrete Integral Equations and Spectra of Non-self-adjoint Jacobi Operators, Integral Equations and Operator Theory, **93** no. 6 (2021), art. 63, 12 pp.

7. Modulus support functionals, Rajchman measures and peak functions (with V. Kadets), Revista de la Real Academia de Ciencias Exactas, Físicas y Naturales. Serie A. Matemáticas (RACSAM), **115** no. 2, article 52, (2021).

8. Perturbation determinants and discrete spectra of semi-infinite non-self-adjoint Jacobi operators, Journal of Spectral Theory, **12** no. 2 (2022), 835–856.

9. Lieb–Thirring and Jensen sums for non-self-adjoint Schrödinger operators on the half-line (with A. Stepanenko), Journal of Spectral Theory, **13** no. 4 (2023), 1345–1391.

10. On the growth of the resolvent of a Toeplitz operator (with S. Kupin and A. Vishnyakova), JMPAG, **20** no. 4 (2024), 1–17.

**LIST OF POSSIBLE REFEREES**

– Prof. Stanislas Kupin,

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– Prof. Rupert L. Frank,

Mathematisches Institut, Ludwig-Maximilans Universität München, Theresienstr. 39, 80333 München, Germany, and Munich Center for Quantum Science and Technology, Schellingstr. 4, 80799 München, Germany, and Mathematics 253-37, Caltech, Pasadena, CA 91125, USA. Email address: r.frank@lmu.de

– Prof. Jean-Claude Cuenin,

Department of Mathematical Sciences, Loughborough University, Loughborough, Leicestershire, LE11 3TU United Kingdom. Email address: J.Cuenin@lboro.ac.uk

– Prof. Andrei Martinez-Finkelshtein,

Department of Mathematics, Baylor University, Waco TX, USA. Email address: A_Martinez-Finkelshtein@baylor.edu