

## Publications

### Books and Chapters in Books

- [1] V. Derkach and M. Malamud, *Extension theory of symmetric operators and boundary value problems*, Transactions of Institute of Math. NAS of Ukraine **104**, Kyiv, 2017, 573 pp. ISBN 978-966-08267-4.
- [2] V. Derkach, *Boundary Triplets, Weyl Functions, and the Kreĭn Formula*, a chapter in *Operator Theory*, (D. Alpay (Editor)), Springer, New York, (2015), ISBN 978-3-0348-0666-4.

### Refereed Publications

#### 2011-2020

- [1] V.A. Derkach, S. Hassi, M.M. Malamud, *Generalized boundary triples, I. Some classes of isometric and unitary boundary pairs and realization problems for subclasses of Nevanlinna functions*, Math. Nachr., **293** (2020), no. 7, 1-50. <https://doi.org/10.1002/mana.201800300>
- [2] V. Derkach and I. Kovalyov. Full indefinite Stieltjes moment problem and Pad'e approximants, *Methods Funct. Anal. Topology*, **26** (2020), no. 1, 1-26. <http://mfat.imath.kiev.ua/article/?id=1285> (2020), no. 1).
- [3] V. Derkach and H. Dym, *Rigged de Branges-Pontryagin spaces and their application to extensions and embedding*, *J. Funct. Anal.*, **277** (2019), no.1, 31-110. <https://doi.org/10.1016/j.jfa.2018.10.018>
- [4] J. Behrndt, V. Derkach, F. Gesztesy, M. Mitrea, *Coupling of symmetric operators and the third Green identity*, *Bulletin of Mathematical Sciences*, **8** (2018), no. 1, 4980. <https://doi.org/10.1007/s13373-017-0105-x>
- [5] V.Derkach, I.Kovalyov, An operator approach to the indefinite Stieltjes moment problem, *J. of Mathematical Sciences*, **227** (2017), no. 1, 33–67. DOI:10.1007/S10958-017-3573-3
- [6] V. Derkach, I. Kovalyov, *Schur algorithm for Stieltjes indefinite moment problem*, *Math. Nachr.* **290** (2017), 1637-1662, [doi.org/10.1002/mana.201600189](https://doi.org/10.1002/mana.201600189)
- [7] V. Derkach, O. Sukhorukova, *A-regular-A-singular factorizations of generalized J-inner matrix functions*, *Methods of Funct. Analysis and Topology*, **23** (2017), no. 3, 231-251. <http://mfat.imath.kiev.ua/article/?id=985>
- [8] V. Derkach and C. Trunk, *Coupling of definitizable operators in Kreĭn spaces*, *Nanosystems: Physics, Chemistry, Mathematics* **8** (2017), 166–179. <http://nanojournal.ifmo.ru/en/wp-content/uploads/2017/04/NPCM82.pdf>
- [9] V. Derkach, E. Sukhorukova, *Generalized  $\gamma$ -generating matrices and Nehari-Takagi problem*, *Operators & Matrices*, **10** (2016), no. 4, 1073-1091. [dx.doi.org/10.7153/oam-10-60](https://doi.org/10.7153/oam-10-60)

- [10] V.Derkach, I.Kovalyov, *On a class of generalized Stieltjes continued fractions*, Methods of Functional Analysis and Topol., **21** (2015), no. 4, 315-335. <http://mfat.imath.kiev.ua/article/?id=781>
- [11] B. Čurgus and V. Derkach, *Partially fundamentally reducible operators in Kreĭn spaces*, Integral Equations Operator Theory. **82** (2015), no. 4, 469-518. <https://doi.org/10.1007/s00020-014-2204-3>
- [12] V. Derkach, H. Dym, *A generalized Schur-Takagi interpolation problem*, Integral Equations Operator Theory, **80** (2014), 165–227. <https://doi.org/10.1007/s00020-014-2174-5>
- [13] V. Derkach, S. Hassi, and H. de Snoo, *Truncated moment problems in the class of generalized Nevanlinna functions*, Mathematische Nachrichten, **285**, (2012), no. 14-15, 1741-1769. DOI 10.1002/mana.201100268
- [14] J. Behrndt, V. Derkach, S. Hassi, and H.S.V. de Snoo, *A realization theorem for generalized Nevanlinna families*, Operators and Matrices, **5** (2011), no.4, 679–706. <dx.doi.org/10.7153/oam-05-49>
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- [16] V. Derkach and H. Dym, *Bitangential interpolation in generalized Schur classes*, Complex Analysis and Operator Theory, **4** (2010), 701-765. DOI 10.1007/s11785-009-0031-3
- [17] M. Derevyagin, V. Derkach, *Convergence of diagonal Pade approximants for a class of definitizable functions*, Operator Theory: Adv.& Appl., **198**, (2009), 97-124.
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- [19] V. Derkach, S. Hassi, M. Malamud, and H. de Snoo, *Boundary relations and generalized resolvents of symmetric operators*, Russian J. Math. Ph, **16** (2009), no.1, 17-60. <https://link.springer.com/article/10.1134>
- [20] V. Derkach and H. Dym, *On linear fractional transformations associated with generalized  $J$ -inner matrix functions*, Integ. Eq. Oper. Th., **65** (2009), 1-50. <https://doi.org/10.1007/s00020-009-1709-7>
- [21] Yu. Arlinskii, S. Belyi, V. Derkach, and E.R.Tsekanovskii, *On realization of the Krein-Langer class  $N_\kappa$  of matrix-valued functions in Hilbert spaces with indefinite metric*, Mathematische Nachrichten, **281**, no. 10, (2008), 1380-1399. <https://doi.org/10.1002/mana.200510686>

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