Curriculum Vitae: Ramiz Garayev (Tapdigoglu)

09/08/2022

Date of Birth: 12/06/1988
Nationality: Azerbaijani
Email: *tapdigoglu@gmail.com*
Phone: *055 574 08 70*

UNIVERSITY EDUCATION

2015- 2019   **PhD in Applied Mathematics, LaSIE - UMR CNRS 7356, University of La Rochelle** (La Rochelle/France)
Thesis title: Inverse problems for fractional order differential equations (under the direction of Prof. Mokhtar Kirane)

2013-2014   **M.S in Fundamental Mathematics , Department of Mathematics, Aix-Marseille University**(Marseille/France)

Thesis title: Invariant subspaces of large index (under the direction of Prof. Alexander Borichev)

2006-2010   **B.S in General Mathematics , Suleyman Demirel University** (Isparta / Turkey)

Thesis title: On the 2-Banach Algebras (under the direction of Prof. Mehmet Gurdal)

2011 – 2015 B.S in Economics (study by correspondence), Anadolu Universty, Ankara,Turkey

February – June 2010 Exchange Program at University of Lodz, Faculty of Technical Physics, Computer Science and Applied Mathematics , Lodz ,Poland

WORK AND TRAININGS

January 2020-December 2021   Postdoctoral research (Möbius invariant and Dirichlet analytical function spaces, Composite operators and Carleson measures) / Sabanci University, Turkey
2020 – 2021   Teaching assistant (Functional analysis)/ Sabanci University, Turkey

2017 – 2020	Teaching and research assistant (Calculus 1, Calculus 2, Differential equations, Complex analysis)/La Rochelle University, France
September 2018	Visit to the Gebze Technical University for a collaboration with Prof.Mansur Ismailov (2 weeks)/ Istanbul, Turkey
December 2017	Visit to the Aix-Marseille University for a collaboration with Prof. Alexander Borichev (1 week)/ Marseille, France
June 2017	Visit to the Claude Bernard Lyon 1 University for a collaboration with Prof. Gilles Cassier (2 weeks)/ Lyon, France
May 2017	**S**pring school on control of partial differential equation and optimization problems (Control and Optimization), University of Monastir, Monastir, Tunisia (1 week)
2010-2012	Teacher in a private school(Büyük Basari Dershanesi), Isparta, Turkey

LANGUAGE SKILLS

Azerbaijani: Native
Turkish : Fluent
English : Advanced
French : Advanced
Russian : Intermediate

COMPUTER SKILLS

• **Simulation** : Matlab, Scilab,
• **Presentation sofrware** : LaTeX, Word, Excel, PowerPoint

RESEARCH INTERESTS

Topics: My main research areas are analysis, operator theory, inverse problems and differential equations. These include the ordinary and fractional differential equations for inverse and nonlinear problems and applications of some integro-differential operators (Duhamel operators) to the study of invariant subspaces, spectral problems, cyclic vectors, commutants, extended eigenvalues and extended eigenvectors of some integral operators.

Keywords: Operator theory, invariant subspaces, inverse problems, PDE's, Fractional calculus

RESEARCH PROJECTS

R. Tapdigoglu (Co-researcher) and B. Torebek, *Some nonlocal analogues of nonlinear partial differential equations,* supports by The Ministry of Education and Science of the Republic of Kazakhstan for 2020-2022.
R. Tapdigoglu (Co-researcher) and N.G.Göğüş, Möbius invariant and Dirichlet analytical function spaces, Composite operators and Carleson measures, granted by TUBITAK, 2019-2022
R. Tapdigoglu (Project leader) and U.Kosem, On the 2-Banach Algebras, granted by TUBITAK, 2009-2010

Directed postgraduate theses

Sarı Nur, *Riccati operators on the containment bergman space of the unit ball, Functional analysis, (Defended : 01.08.2021)* Suleyman Demirel University, Isparta,Turkey (Co-supervisor with Prof. Mehmet Gurdal)

Mevlut Altintas, *Duhamel Banach Algebra structure and some applications of Duhamel product, Functional analysis, (ongoing)*
Suleyman Demirel University,Isparta,Turkey (Co-supervisor with Prof. Mehmet Gurdal)

PUBLICATIONS

- Karaev, M.T., **Tapdigoglu, R**. On Some Problems for Reproducing Kernel Hilbert Space Operators via the Berezin Transform. Mediterr. J. Math. 19, 13 (2022). https://doi.org/10.1007/s00009-021-01926-y

- **R. Tapdigoglu**, M.Garayev and N. Altwaijry Berezin symbol inequalities via Grüss type inequalities and related questions, Turk J Math (2022) 46: 991 – 1003 https://doi.org/10.3906/mat-2111-71

- **R. Tapdigoglu,** *New Berezin symbol inequalities for operators on the reproducing kernel Hilbert space*, Operators and Matrices, Vol. 15, No. 3 (2021), 1031–1043 https://doi.org/10.7153/oam-2021-15-64

- **R. Tapdigoglu**, M. Gürdal, N. Altwaijry and N. Sarı *Davis-Wielandt-Berezin radius inequalities via Dragomir inequalities*, Operators and Matrices, Vol. 15, No. 4 , 1445–1460 2021 https://doi.org/10.7153/oam-2021-15-90

- S. Saltan, **R. Tapdigoglu** and İ. Çalisir *Some new relations between Berezin number and Berezin norm of operators,* Rocky Mountain Journal of Mathematics, 2022 (In press)

- **R. Tapdigoglu**, M. Gürdal and M.Altintas *Duhamel Banach algebra structure of some space and related topics,* Publications de l'institut Mathématique, 2022 (In press)
- **R. Tapdigoglu** and Najla Altwairjy, *On some applications of Duhamel operators*, Mathematica Slovaca, 2022 (in press)
- **R. Tapdigoglu,** *On the uniqueness of solutions of Duhamel equations,* Filomat, 2021 (Accepted)

- **R. Tapdigoglu** and B.T. Torebek, *Commutant and Uniqueness of Solutions of Duhamel Equations,* Bull. Malays. Math. Sci. Soc., July 2020 , No. 2, https://doi.org/10.1007/s40840-020-00972-1

- **R. Tapdigoglu,** *On the Banach algebra structure for $C^{(n)}$ of the bidisc and related topics,* Illinois Journal of Mathematics, Vol. 64, No. 2 (2020), 185–197 https://doi.org/10.1215/00192082-8303477

- **R. Tapdigoglu** and B.T. Torebek, *Global existence and blow-up of solutions of the time-fractional space-involution reaction-diffusion equation,* Turkish Journal of Mathematics 2020, 44: 960 – 969. https://doi.org/10.3906/mat-1909-65

- **R. Tapdigoglu** and B.T. Torebek, *On a nonlinear boundary layer problem for the fractional Blasius type equation,* International Journal of Nonlinear Sciences and Numerical Simulation, 2018, vol. 19, no 5, p. 493-498. https://doi.org/10.1515/ijnsns-2017-0018

- **R. Tapdigoglu** and B.T. Torebek, *Inverse source problems for a wave equation with involution,* Bulletin of the Karaganda University Mathematics, 2018, vol. 91, no 3, p. 75-82.

- B.T. Torebek and **R. Tapdigoglu**, *Some inverse problems for the nonlocal heat equation with Caputo fractional derivative,* June 2017, Mathematical Methods in the Applied Sciences, 2017, vol. 40, no 18, p. 6468-6479. https://doi.org/10.1002/mma.4468

- B. Ahmad, A. Alsaedi, M. Kirane and **R. Tapdigoglu**, *An inverse problem for time fractional evolution equations with an involution perturbation,* Quaestiones Mathematicae, 2017, vol. 40, no 2, p. 151-160.

- **R. Tapdigoglu**, U. Kosem. *Some results on 2-Banach algebras,* Electronic Journal of Mathematical Analysis and Applications, Vol. 4(1) Jan. 2016, pp. 11-14 .

- **R. Tapdigoglu**, On the description of invariant subspaces in the space $C^{(n)}[0,1]$, Houston Journal of Mathematics, Volume 39, Issue 1 , 2013, pp. 169-176.

- **R. Tapdigoglu**, *Invariant subspaces of Volterra integration operator: Axiomatical approach,* Bulletin des Sciences Mathématiques, Volume 136, Issue 5, July 2012, pages 574-578. https://doi.org/10.1016/j.bulsci.2011.12.006

- **R. Tapdigoglu**, Two results for integration and fractional integration operators, 2021(Submitted)

- **R. Tapdigoglu,** Generalized Riccati operator equations, invariant subspaces and Toeplitz Corona problem via Berezin symbols, 2022 (Submitted)

- **R. Tapdigoglu** and G.N. Gökhan**,** Operators on de Branges- Rovnyak spaces and their properties*, 2021* (Submitted)