

# International Conference Harmonic Analysis and Approximations, VII

Dedicated to 90<sup>th</sup> anniversary of Alexandr Talalyan

16-22 September, 2018, Tsaghkadzor, Armenia

## PROGRAMME

### 16 SEPTEMBER

18<sup>00</sup>-19<sup>00</sup> **Arrival and Registration**

19<sup>00</sup>-20<sup>30</sup> **Welcome Party**

20<sup>00</sup>-22<sup>00</sup> **Registration**

### 17 SEPTEMBER

9<sup>00</sup>-10<sup>00</sup> *Breakfast*

10<sup>00</sup>-10<sup>40</sup> Opening Ceremony: Talalyan's Memorial Session

10<sup>40</sup>-11<sup>25</sup> G. Gevorkyan, *The scientific legacy of A.A. Talalyan, and related results*

11<sup>30</sup>-12<sup>00</sup> *Coffee Break*

12<sup>00</sup>-12<sup>45</sup> A. Olevskii, *Around Cantor uniqueness theorem*

13<sup>00</sup>-14<sup>00</sup> *Lunch*

#### **PLENARY LECTURE** – Chairman: B. Kashin

15<sup>00</sup>-15<sup>45</sup> V. Skvortsov, *Differentiation of generalized Bochner and Pettis integrals and orthogonal series with Banach space valued coefficients*

#### **Section A** – Chairman: A. Sahakian

15<sup>55</sup>-16<sup>15</sup> G. Oniani, *On the differentiation of integrals with respect to translation invariant convex density bases*

16<sup>15</sup>-16<sup>35</sup> M. Grigoryan and V. Krotov, *On the unconditional quasi-basis property of the Faber–Schauder system*

16<sup>45</sup>-17<sup>05</sup> E. Lifyand, *The Fourier transform of a function of bounded variation: symmetry and asymmetry*

17<sup>05</sup>-17<sup>25</sup> A. Solodov, *A lower bound for the sum of a sine series with convex coefficients*

17<sup>25</sup>-17<sup>45</sup> N. Srapionyan, S. Gogyan, *On the quasi-greedy constant of the Haar subsystems in  $L_1(0; 1)^d$*

#### **Section B** – Chairman: E. Lebedeva

15<sup>55</sup>-16<sup>15</sup> R. Barkhudaryan, A. Poghosyan, *Convergence Acceleration of the Trigonometric Expansions*

16<sup>15</sup>-16<sup>35</sup> O. Kuznetsova, *On the norms of the integral means of the Bochner-Riesz sums*

16<sup>45</sup>-17<sup>05</sup> A. Saksa, *On approximation processes defined by the cosine operator function in a Banach space*

- 17<sup>05</sup>-17<sup>25</sup> A. Šeletski, A. Kivinukk, *On Steklov means in operator cosine function framework in Banach space*
- 17<sup>25</sup>-17<sup>45</sup> L. Ikhsanov, *On estimation of functions orthogonal to piecewise constant functions by the second modulus of continuity*
- 19<sup>00</sup>-20<sup>00</sup> *Dinner*

## 18 SEPTEMBER

- 9<sup>00</sup>-10<sup>00</sup> *Breakfast*
- PLENARY LECTURES** – Chairman: V. Temlyakov
- 10<sup>00</sup>-10<sup>25</sup> B. Kashin, *Decomposing an orthogonal matrix into two submatrices with extremely small  $(2, 1)$  norm*
- 10<sup>25</sup>-10<sup>45</sup> P. Borodin, *Approximation by sums of shifts in  $L_p$  spaces*
- 10<sup>55</sup>-11<sup>40</sup> S. Konyagin, *Convergence to Zero of Exponential Sums With Positive Integer Coefficients*
- 11<sup>40</sup>-12<sup>10</sup> *Coffee Break*
- 12<sup>10</sup>-12<sup>55</sup> G. Kerkyacharian, *Regularity spaces, and wavelet in a geometric framework. Application to Gaussian processes and statistical estimation*
- 13<sup>00</sup>-14<sup>00</sup> *Lunch*
- Section A** – Chairman: S. Kislyakov
- 15<sup>00</sup>-15<sup>20</sup> M. Skopina, *Multivariate Sampling-type Operators in Weighted  $L_p$  Spaces*
- 15<sup>20</sup>-15<sup>40</sup> A. Krivoshein and M. Skopina, *Multivariate Sampling-Type Expansions*
- 15<sup>50</sup>-16<sup>10</sup> E. Lebedeva, *Unconditional Convergence for Wavelet Frame Expansions*
- 16<sup>10</sup>-16<sup>30</sup> M. Passenbrunner, *Spline Characterizations of the Radon-Nikodým property*
- 16<sup>40</sup>-17<sup>00</sup> K. Keryan and M. Passenbrunner, *Projection operators onto spaces of Chebyshev splines*
- 17<sup>00</sup>-17<sup>20</sup> S. Aleksanyan, *Optimal uniform approximation on the unbounded domains by the harmonic functions*
- 17<sup>30</sup>-17<sup>50</sup> D. Martirosyan, *On a Lower Bound of Polynomial Norms in a Hilbert Space*
- Section B** – Chairman: T. Harutyunyan
- 15<sup>00</sup>-15<sup>20</sup> K. Lesnik, *Toeplitz and Hankel operators in non-algebraic setting*
- 15<sup>20</sup>-15<sup>40</sup> P. Mleczko, *Selected aspects of complex symmetric operators*
- 15<sup>50</sup>-16<sup>10</sup> J. Restrepo, *A Boundary Property of Some Subclasses of Functions of Bounded Type in the Half-Plane*
- 16<sup>10</sup>-16<sup>30</sup> V. Ohanyan, *Reconstruction of convex bodies by Covariogram*
- 16<sup>40</sup>-17<sup>00</sup> N. Aharonyan, *Calculation of geometric probabilities for balls in  $\mathbb{R}^n$*

- 17<sup>00</sup>-17<sup>20</sup> L. Gevorgyan, *On the Castillon - Cramer problem*
- 17<sup>30</sup>-17<sup>50</sup> S. Aghekyan and H. Hayrapetyan, *On the Riemann boundary value problem in the half-plane for weighted spaces*
- 17<sup>50</sup>-18<sup>10</sup> A. Tumanyan, *On the Fredholm property of semielliptic operators in anisotropic Sobolev spaces*
- 19<sup>00</sup>-20<sup>00</sup> *Dinner*

## 19 SEPTEMBER

- 9<sup>00</sup>-10<sup>00</sup> *Breakfast*
- PLENARY LECTURES** – Chairman: G. Karagulyan
- 10<sup>00</sup>-10<sup>45</sup> V. Temlyakov, *Remarks on numerical integration, discrepancy, and diaphony*
- 10<sup>55</sup>-11<sup>40</sup> A. Iosevich, *The Falconer distance Problem*
- 11<sup>40</sup>-12<sup>10</sup> *Coffee Break*
- Section A** – Chairman: S. Konyagin
- 12<sup>10</sup>-12<sup>30</sup> S. Kislyakov, *A remark on indicator functions with sparse spectrum*
- 12<sup>30</sup>-12<sup>50</sup> V. Stepanov, *Characterization of Associate Function Spaces*
- Section B** – Chairman: E. Lifyand
- 12<sup>10</sup>-12<sup>30</sup> G. Karapetyan, *Boundary Embedding Theorems for Multianisotropic Spaces*
- 12<sup>30</sup>-12<sup>50</sup> H. Hayrapetyan, *Boundary value problem with infinite index*
- 13<sup>00</sup>-14<sup>00</sup> *Lunch*
- Section A** – Chairman: V. Skvortsov
- 15<sup>00</sup>-15<sup>20</sup> U. Goginava, *Subsequences of logarithmic means of Walsh-Fourier Series*
- 15<sup>20</sup>-15<sup>40</sup> K. Navasardyan, *Uniqueness theorems for Vilenkin and generalized Haar systems*
- 15<sup>50</sup>-16<sup>10</sup> A. Sargsyan, *On the structure of universal functions for weighted spaces  $L^p_\mu[0, 1]$ ,  $p > 1$*
- 16<sup>10</sup>-16<sup>30</sup> L. Galoyan, *On the convergence of the negative order Cesaro means of Fourier series with respect to the trigonometric and Walsh systems*
- 16<sup>40</sup>-17<sup>00</sup> A. Kobelyan, *On the Convergence of Double Fourier Series with Respect to Haar and Franklin Systems*
- 17<sup>00</sup>-17<sup>20</sup> S. Sargsyan, *On the convergence and behavior of coefficients of Fourier-Vilenkin series*
- Section B** – H. Hayrapetyan
- 15<sup>00</sup>-15<sup>20</sup> H. Kempka, *Building Blocks for Function Spaces with Variable Exponents*
- 15<sup>20</sup>-15<sup>40</sup> G. Karapetyan, H. Petrosyan, *Construction of Approximate Solutions of the Dirichlet Problem in  $R^n$  for Regular Hypoelliptic Operators*
- 15<sup>50</sup>-16<sup>10</sup> T. Harutyunyan, *Uniqueness theorems in inverse Sturm–Liouville problems*
- 16<sup>10</sup>-16<sup>30</sup> R. Khachatryan, *Gradient Descent Method in Parametric Optimization Problems*

- 16<sup>40</sup>-17<sup>00</sup> H. Asatryan, W. Kirsch, *Random Schrödinger Operators with a Background Potential*
- 17<sup>00</sup>-17<sup>20</sup> N. Kekelia, *On the Relation of Stability Between Linear Ordinary Systems, Impulsive and Difference Equations and Linear Systems of Generalized Ordinary Differential Equations*
- 17<sup>20</sup>-17<sup>40</sup> A. Babayan, S. Abelyan, *On an Effective Solution of the Boundary Value Problem for One Improperly Elliptic Equation*
- 18<sup>50</sup>-19<sup>00</sup> **Participant's Group Photo**
- 19<sup>00</sup>-23<sup>00</sup> **Banquet**

## 20 SEPTEMBER

- 9<sup>00</sup>-10<sup>00</sup> *Breakfast*
- PLENARY LECTURES** – Chairman: A. Oleviskii
- 10<sup>00</sup>-10<sup>45</sup> D. Leviatan, *Comparing the degrees of unconstrained and constrained approximation by polynomials*
- 10<sup>55</sup>-11<sup>40</sup> G. Karagulyan, *On the Sparse Domination for a General Class of Operators*
- 11<sup>40</sup>-12<sup>10</sup> *Coffee Break*
- Section A** – Chairman: G. Gevorgyan
- 12<sup>10</sup>-12<sup>30</sup> E. Kopecka, *Geometry and Convergence of Products of Projections*
- 12<sup>30</sup>-12<sup>50</sup> A. Horváth, *Translation operator on the half-line*
- Section B** – Chairman: R. Khachatryan
- 12<sup>10</sup>-12<sup>30</sup> N. Temirgaliyev, *Potential of the Institute of Theoretical Mathematics and Scientific computations (Kazakhstan) in directions and themes*
- 12<sup>30</sup>-12<sup>50</sup> S. Navasardyan, *On the Axioms of Hypergroup Over Group*
- 13<sup>00</sup>-14<sup>00</sup> *Lunch*
- Section A** – Chairman: G. Oniani
- 15<sup>00</sup>-15<sup>20</sup> M. Grigoryan, *Functions, universal with respect to classical systems*
- 15<sup>20</sup>-15<sup>40</sup> A. Al-Salman, *Bounds For Marcinkiewicz Integral Operators*
- 15<sup>50</sup>-16<sup>10</sup> A. Kuleshov, *Continuous sums of ridge functions on a convex body*
- 16<sup>10</sup>-16<sup>30</sup> G. Gevorgyan, *On the uniqueness of double Franklin series*
- 16<sup>40</sup>-17<sup>00</sup> V. Mikayelyan, *The Gibbs phenomenon for general Franklin systems*
- 17<sup>00</sup>-17<sup>20</sup> L. Simonyan, *On Convergence of the Fourier Series with Respect to the Multiplicative Systems*
- Section B** – Chairman: R. Barkhudaryan

- 15<sup>00</sup>-15<sup>20</sup> S. Dekel, *On Exact Recovery of Dirac Ensembles from Projections onto Polynomial Spaces*
- 15<sup>20</sup>-15<sup>40</sup> H. Hakopian, V. Vardanyan, *The usage of lines in GC<sub>n</sub>-sets*
- 15<sup>50</sup>-16<sup>10</sup> N. Topuridze, *Some Kind of Quaternionic Polynomials*
- 16<sup>10</sup>-16<sup>30</sup> A. Rotkevich, *Area integral and polynomial approximations of holomorphic functions in C<sub>n</sub>*
- 16<sup>40</sup>-17<sup>00</sup> R. Aramyan, *The Sine Transform in Convex Geometry*
- 17<sup>00</sup>-17<sup>20</sup> M. Karapetyants, *Subdivision schemes on dyadic half-line*
- 18<sup>45</sup>-19<sup>00</sup> **Closing Ceremony**
- 19<sup>00</sup>-20<sup>00</sup> *Dinner*

### 21 SEPTEMBER

- 9<sup>00</sup>-10<sup>00</sup> *Breakfast*
- 10<sup>00</sup>-21<sup>00</sup> **Excursion with lunch and dinner**

### 22 SEPTEMBER

- 9<sup>00</sup>-10<sup>00</sup> *Breakfast*
- 10<sup>00</sup> **Departure**