

## 21 September

10<sup>00</sup>-10<sup>40</sup> OPENING LECTURE - Chairman: *N. Arakelian*

A. Pinkus *On  $n$ -Convexity*

10<sup>50</sup>-12<sup>20</sup> OPENING CEREMONY

LECTURE - Chairman: *N. Arakelian*

12<sup>20</sup>-13<sup>00</sup> M. Lacey *Nehari Theorem on the Polydisk*

LECTURE - Chairman: *V. Temlyakov*

15<sup>00</sup>-15<sup>40</sup> P. Gauthier *Approximation of and by the Riemann Zeta Function*

SECTION A - Chairman: *M. Lacey*

15<sup>50</sup>-16<sup>10</sup> G. Karagulyan *Basis of Rectangles and Differentiation of Integrals*

16<sup>15</sup>-16<sup>35</sup> V. Krotov *Inequalities for the Sharp-Maximal Function in Metric Spaces*

16<sup>40</sup>-17<sup>00</sup> E. Liflyand *Multidimensional Hausdorff operators on the real Hardy space*

17<sup>10</sup>-17<sup>30</sup> V. Lebedev *On the Fourier transform of the indicator of a domain with  $C^1$ -smooth boundary*

17<sup>35</sup>-17<sup>55</sup> A. Vagharshakyan *On Representation of Functions from the space  $\text{Re } H_1$*

SECTION B - Chairman: *J. Mueller*

15<sup>50</sup>-16<sup>10</sup> H.-P. Blatt *The Interaction of Alternation Points and Poles in Rational Approximation*

16<sup>15</sup>-16<sup>35</sup> G. Opfer *Shift generated Haar spaces on track fields*

16<sup>40</sup>-17<sup>00</sup> M. R. Pouryayevali *Entire holomorphic mappings on Stein manifolds*

17<sup>10</sup>-17<sup>30</sup> R. Aramyan *Consistency Method in Reconstruction by Projection Curvatures*

17<sup>35</sup>-17<sup>55</sup> R. Avetisyan, A. Khachatryan, R. Khachatryan *Integrals of multivalued mappings*

18<sup>00</sup>-18<sup>20</sup> R. Shamoyan *Bounded projections and representation of linear continuous functionals in Lizorkin-Triebel type spaces of holomorphic functions in the polydisk*

20<sup>00</sup> CONCERT (Chamber Music)

## 22 September

### LECTURES - Chairman: *W. Luh*

10<sup>00</sup>-10<sup>40</sup> S. Konyagin *On the Littlewood problem modulo a prime and on a question of Gowers*

10<sup>50</sup>-11<sup>30</sup> N. Arakelian *On Dirichlet and Neuman Problems*

11<sup>30</sup>-11<sup>50</sup> *Coffee-Break*

### SECTION A - Chairman: *A. Sahakian*

11<sup>50</sup>-12<sup>10</sup> E. Semenov *Haar-Fourier multipliers*

12<sup>15</sup>-12<sup>35</sup> V. Kolyada *Mixed norms and Sobolev-type inequalities*

12<sup>40</sup>-13<sup>00</sup> G. Tkebuchava *Convergence of logarithmic means of Walsh-Fourier series*

### SECTION B - Chairman: *V. Martirosian*

11<sup>50</sup>-12<sup>10</sup> W. Gawronski *Asymptotics for Hermite type polynomials*

12<sup>15</sup>-12<sup>35</sup> W. Trebels *Norm smoothness and a.e. rate of convergence of approximations of convolution type*

12<sup>40</sup>-13<sup>00</sup> V. Maiorov *Approximation by Neural Networks and Learning Theory*

### SECTION C - Chairman: *L. Mikayelyan*

11<sup>50</sup>-12<sup>10</sup> D. Mueller-Wichards, P. Kosmol *On Stability for Families of Nonlinear Equations*

12<sup>15</sup>-12<sup>35</sup> Kh. Khachatryan, A. Khachatryan *On Structure of Solution of one Integral-Differential Equation with Completely Monotonic Kernel*

12<sup>40</sup>-13<sup>00</sup> H. Asatryan *The inverse quantum scattering problem for Sturm-Liouville operator with certain behavior of the potential at infinity*

### LECTURE - Chairman: *H. Hakopian*

15<sup>00</sup>-15<sup>40</sup> C. de Boor *What are the limits of Lagrange projectors?*

### SECTION A - Chairman: *V. Kolyada*

15<sup>50</sup>-16<sup>10</sup> R. Hovsepian *On a problem of P.L. Ul'yanov*

16<sup>15</sup>-16<sup>35</sup> B. Afeyan *Recent Applications of Wavelets and Curvelets in Inertial Confinement Fusion Research*

16<sup>40</sup>-17<sup>00</sup> G. Sampson *Mapping properties for oscillatory integrals in  $d$ -dimensions*

17<sup>10</sup>-17<sup>30</sup> G. Amirkhanyan *On convergence of double Fourier-Walsh series of functions of bounded  $\Lambda$ -variations*

17<sup>35</sup>-17<sup>55</sup> S. Tikhonov *Trigonometric series of Nikol'skii classes*

18<sup>00</sup>-18<sup>20</sup> A. Sargsian *On the convergence of Fourier series for the spherical functions in the norm of  $L^1(S^3)$*

SECTION B - Chairman: *W. Gawronski*

- 15<sup>50</sup>-16<sup>10</sup> V. Martirosian *The Converse of the Fabry-Polya Theorem on Singularities of Lacunary Power Series*
- 16<sup>15</sup>-16<sup>35</sup> J. Mueller *Lacunary polynomial approximation on compact sets in the complex plane*
- 16<sup>40</sup>-17<sup>00</sup> A. Petrosyan *The uniform approximation by polynomials on real nondegenerate Weyl's polyhedron*
- 17<sup>10</sup>-17<sup>30</sup> K. Gasparian *On a topology on the space of functions without second kind of discontinuity*
- 17<sup>35</sup>-17<sup>55</sup> A. Vardanyan, N. Arakelian *Approximation by entire harmonic functions with optimal growth*

SECTION C - Chairman: *D. Mueller-Wichards*

- 15<sup>50</sup>-16<sup>10</sup> I. Khachatryan, A. Petrosyan *Fourier expansion of differential operator by means of eigenfunction*
- 16<sup>15</sup>-16<sup>35</sup> P. Kosmol, D. Mueller-Wichards *Stability Principles and Approximation Problems in Variational Calculus*
- 16<sup>40</sup>-17<sup>00</sup> H. Mikayelyan *The tangential touch between fixed and free boundaries for the two-phase obstacle-like problem*
- 17<sup>10</sup>-17<sup>30</sup> A. Karakhanyan *On Reflector antenna design problems*
- 17<sup>35</sup>-17<sup>55</sup> T. Harutyunyan *On the Ambarzumyan's Theorem for Dirac Operator*
- 18<sup>00</sup>-18<sup>20</sup> J. Myjak *Porosity in best approximation theory*

## 23 September

### LECTURES - Chairman: *C. de Boor*

10<sup>00</sup>-10<sup>40</sup> B. Bojanov *Interpolation by bivariate polynomials based on Radon projections*

10<sup>50</sup>-11<sup>30</sup> H. Hakopian *On Bezout's Theorem and Nullstellensatz*

11<sup>30</sup>-11<sup>50</sup> *Coffee-Break*

### SECTION A - Chairman: *V. Krotov*

11<sup>50</sup>-12<sup>10</sup> M. Skopina *On construction of multivariate wavelet frames*

12<sup>15</sup>-12<sup>35</sup> N. Strelkov *Wavelet approximation and lattice packing*

12<sup>40</sup>-13<sup>00</sup> S. Pandey *Wavelet Representations of Coorbit Spaces Invariant Under Symmetry Group*

### SECTION B - Chairman: *P. Gauthier*

11<sup>50</sup>-12<sup>10</sup> V. Musoyan, S. Samarchyan *Fast Approximation and Generated Biorthogonal Systems*

12<sup>15</sup>-12<sup>35</sup> M. Martirosyan, S. Samarchyan *q-Bounded Systems: Common Approach to Fisher-Micchelli's and Bernstein-Walsh's Type Problems*

12<sup>40</sup>-13<sup>00</sup> M. Niess *New results on entire universal functions*

### SECTION C - Chairman: *P. Kosmol*

11<sup>50</sup>-12<sup>10</sup> J. Sadegh *Meshless Methods for Numerical Solution of PDEs by Radial Basis Functions*

12<sup>15</sup>-12<sup>35</sup> A. Hakobyan *Up to the boundary upper semi-continuity of  $|\nabla u|$  for solutions to parabolic equations*

12<sup>40</sup>-13<sup>00</sup> A. Babayan *On a Boundary Value Problem for Elliptic Equations with Nonsymmetric Roots*

### LECTURES - Chairman: *A. Pinkus*

15<sup>00</sup>-15<sup>40</sup> N. Dyn *Metric Approximation of Univariate Set-Valued Functions*

15<sup>50</sup>-16<sup>30</sup> K. Oskolkov *Schroedinger particle as a multifractal*

### SECTION A - Chairman: *P. Wojtaszczyk*

16<sup>40</sup>-17<sup>00</sup> V. Dol'nikov, N. Strelkov *B-splines and Wavelets*

17<sup>10</sup>-17<sup>30</sup> P. Bechler *Inequivalence of wavelet systems in  $L_1(\mathbb{R}^d)$  and  $BV(\mathbb{R}^d)$*

17<sup>35</sup>-17<sup>55</sup> I. Novikov *Biorthogonal compactly supported wavelets*

18<sup>00</sup>-18<sup>20</sup> F. Rahbarnia *Stability of functionals and amenability*

SECTION B - Chairman: *A. Karapetyants*

- 16<sup>40</sup>-17<sup>00</sup> A. Soldatov *On Dirichlet problem for elliptic systems on the plane*  
17<sup>10</sup>-17<sup>30</sup> H. Hayrapetyan *Hilbert's Boundary Problem in the Weighted Spaces*  
17<sup>35</sup>-17<sup>55</sup> I. Katkovskaya *Boundary Behavior Estimates for Differentiable Functions*  
18<sup>00</sup>-18<sup>20</sup> A. Barseghyan *An application of Laguerre polynomials to convolution type integral equations*

SECTION C - Chairman: *A. Babayan*

- 16<sup>40</sup>-17<sup>00</sup> A. Baghdasaryan *On the "B-Products" of Spaces of Besov Type*  
17<sup>10</sup>-17<sup>30</sup> M. Bozzini *A Method for the Poisson Equation*  
17<sup>35</sup>-17<sup>55</sup> T. Kühn *Entropy numbers of embeddings of weighted Besov spaces*  
18<sup>00</sup>-18<sup>20</sup> G. Karapetyan *Liouville and Phragmen-Lindeloff type theorems for hypoelliptic equations*

19<sup>00</sup> BANQUET

24 September

10<sup>00</sup> EXCURSION

Tsahkadzor – Lake Sevan – Goshavank – Haghartsin (picnic) – Tsahkadzor

25 September

LECTURES - Chairman: *S. Konyagin*

- 10<sup>00</sup>-10<sup>40</sup> V. Temlyakov *On Greedy Algorithms with restricted depth search*  
10<sup>50</sup>-11<sup>30</sup> G. Kerkyacharian *Some applications of Approximation Theory in non-parametric statistic*

11<sup>30</sup>-11<sup>50</sup> *Coffee-Break*

SECTION A - Chairman: *A. Kamont*

- 11<sup>50</sup>-12<sup>10</sup> S. Gogyan *On the divergence of greedy approximation in  $L^1(0,1)$  with respect to general Haar systems*  
12<sup>15</sup>-12<sup>35</sup> M. Grigoryan, S. Gogyan *Greedy algorithm with respect to the Haar system and modification of functions*  
12<sup>40</sup>-13<sup>00</sup> S. Episkoposian *On the divergence of Fourier-Walsh series in  $L^1(E)$  metric*

SECTION B - Chairman: *A. Vagharshakyan*

- 11<sup>50</sup>-12<sup>10</sup> L. Mikayelyan *An algorithm for calculation of the prediction error for some stationary stochastic processes*  
12<sup>15</sup>-12<sup>35</sup> H. Gevorgian *On the Estimates of Monomials through the Polynomials and classification of extremum points of the multivariable Functions*  
12<sup>40</sup>-13<sup>00</sup> L. Gevorgyan *On some properties of the normalized numerical range*

LECTURES - Chairman: *K. Kazarian*

- 15<sup>00</sup>-15<sup>40</sup> P. Wojtaszczyk *Anisotropic spaces via level sets*  
15<sup>50</sup>-16<sup>30</sup> W. Luh *Lacunary summability*

SECTION A - Chairman: *M. Grigoryan*

- 16<sup>40</sup>-17<sup>00</sup> A. Nersessian, A. Poghosyan, R. Barkhudaryan *Reconstruction of a function using its Fourier coefficients*  
17<sup>10</sup>-17<sup>30</sup> A. Vagharshakyan *Denoising problem for predictable signals*  
17<sup>35</sup>-17<sup>55</sup> A. Sargsian *Greedy algorithm with regard to Faber-Schauder subsystems*  
18<sup>00</sup>-18<sup>20</sup> G. Onaini *On the Integral Properties of the Strong Maximal Operator*

SECTION B - Chairman: *A. Soldatov*

- 16<sup>40</sup>-17<sup>00</sup> J. Vybiral *Decomposition techniques in function spaces with dominating mixed smoothness*  
17<sup>10</sup>-17<sup>30</sup> A. Karapetyants *Analytic weighted spaces of functions of bounded mean oscillation on the unit disc*  
17<sup>35</sup>-17<sup>55</sup> K. Avetisyan *A maximal theorem for a weighted space on the unit ball of  $\mathbb{R}^n$*   
18<sup>00</sup>-18<sup>20</sup> A. Karapetyan *Weighted  $\bar{\partial}$ -Integral Representations of Smooth Functions in the Unit Ball*

## 26 September

### LECTURES - Chairman: *N. Dyn*

10<sup>00</sup>-10<sup>40</sup> K. Kazarian *A-sets and wavelets*  
10<sup>50</sup>-11<sup>30</sup> Tuan Vu Kim *Sampling of Bandlimited Signals*

11<sup>30</sup>-11<sup>50</sup> *Coffee-Break*

### SECTION A - Chairman: *G. Gevorkian*

11<sup>50</sup>-12<sup>10</sup> K. Keryan *On general periodic Franklin systems*  
12<sup>15</sup>-12<sup>35</sup> M. Poghosyan, K. Keryan *Periodic Franklin Systems as Bases in  $H^1$*   
12<sup>40</sup>-13<sup>10</sup> G. Gevorkian, A. Kamont *On the conjugate to the general Franklin system*  
13<sup>15</sup>-13<sup>35</sup> A. Stephanyan *On representation of measurable functions by general Franklin series*

15<sup>00</sup> EXCURSION (local)

18<sup>00</sup> CLOSING CEREMONY