### VIAM Workshop:

# On State of Art Concerning Some Classes of Equations of Mathematical Physics

## Scientific-Program Committee:

Lucian Beznea (Romania, Co-chair) George Jaiani (Georgia, Co-chair)

- N. Chinchaladze
- D. Natroshvili
- R. Purice
- G. Rukhaia

## Organizing Committee:

- N. Chinchaladze
- B. Gulua
- G. Rukhaia

#### Organizers:

VIAM TSU – I. Vekua Institute of Applied Mathematics (VIAM) of I. Javakhishvili Tbilisi State University (TSU)

TICMI – Tbilisi International Centre of Mathematics and Informatics

IMAR – Simion Stoilow Institute of Mathematics of the Romanian Academy, Bucharest, Romania With support from AUF (*L'Agence Universitaire de la Francophonie*) ECO 2024, DRECO-8647

#### **Invited Lecturers:**

**14:00 - 14:40 D. Natroshvili** (GTU, VIAM). Application of the Potential Method to Transmission Problems for Composite Layered Elastic Structures Containing Interfacial Cracks

**14:45 - 15:25 R. Purice** (IMAR). An Algebra of Infinite Matrices Associated to the Weyl Pseudo-Differential Calculus

15:30-16:10 G. Jaiani (VIAM). Even Order Singular Elliptic Equations

#### Coffee Break

### Talks:

**16:30 - 16:50 Oana Lupascu-Stamate** (Gheorghe Mihoc-Caius Iacob Institute of Mathematical Statistics and Applied Mathematics of the Romanian Academy, Bucharest, Romania). Stochastic fragmentation processes for a system of particles with spatial position

**16:55 - 17:15 G. Rukhaia** (VIAM). Monge-Ampere Equations in Freeform Optics, and the Corresponding Optimal Transport Solvers

**17:20 - 17:40 M. Kokhreidze** (TSU). Construction of Hierarchical Mathematical Models for a Linearized Reiner Elastic Materials

17:45-18:00 Round Table