



Beijing-Saint Petersburg Mathematics Colloquium

Tuesday June 30 at 15:00

zoom ID 659-6020-8496, password 407323

direct link: <https://zoom.com.cn/j/65960208496?pwd=V2pJZExpamdVMHdBWHBMb3JqajJsZz09>

**Prof. Anatoly Vershik (PDMI RAS)**

**«Dynamics in the space of metrics and new invariants  
in ergodic theory»**

1. Admissible metrics on the measure space: new trend in the theory of mm spaces.
2. Classification of mm-spaces. Matrix distributions.
3. The actions of measure preserving groups in the space of admissible metrics in measure space. ( $\mathcal{M} \subset L^1(X \times X, \mu \times \mu)$ ).
4. Average metrics, ergodic limit and asymptotic invariants,
5. Scaling entropy. Scaling entropy function. Examples.
6. Theorem. Bounded scaling entropy and discrete spectra. Sequential entropy by Kushnirenko. All possible scalings.
7. New geometrical problems.

Presentation slides: <https://disk.pku.edu.cn:443/link/B42BC9D4300DF6D5FB9FB94E62D23105>

Everyone is welcome!