

**Международная конференция  
«Системы Аносова и современная динамика»,  
посвященная 80-летию со дня рождения  
Дмитрия Викторовича Аносова**

*(Москва, 19-23 декабря 2016 г.)*

## **ПРОГРАММА**

**International Conference  
“Anosov Systems and Modern Dynamics”  
dedicated to the 80th anniversary  
of Dmitry Anosov**

*(Moscow, December 19-23, 2016)*

## **PROGRAM**

*Понедельник, 19 декабря – Monday, December 19*

*Заседания проходят в конференц-зале на 9-м этаже МИАН  
Talks take place in the conference hall at Steklov Mathematical Institute (9<sup>th</sup> floor)*

9:00 – 9:50	<b>Регистрация участников (МИАН, 9 этаж, холл) Registration (Steklov Mathematical Institute, floor 9, lobby)</b>
9:50 – 10:00	<b>Открытие конференции Opening of the Conference</b>
<i>Председатель: Ю. С. Ильяшенко – Chairman: Yu. Ilyashenko</i>	
10:00 – 10:45	<b>V. Grines, E. Zhuzhoma</b> <i>On Anosov – Weil theory and classification of dynamical systems on surfaces</i>
10:45 – 11:15	<b>Кофе-брейк / Coffee-break</b>
11:15 – 12:00	<b>A. Bufetov</b> <i>Quasi-symmetries and conditional measures of determinantal point processes</i>
12:10 – 12:40	<b>Yu. Neretin</b> <i>Closures of group actions and Poisson measures</i>
12:50 – 13:20	<b>A. Gorodetsky (joint with V. Kleptsyn)</b> <i>Parametric Furstenberg theorem on random products of <math>SL(2, \mathbb{R})</math> matrices</i>
13:20 – 15:00	<b>Обед / Lunch break</b>
<i>Председатель: А. С. Городецкий – Chairman: A. Gorodetsky</i>	
15:00 – 15:30	<b>I. Taimanov</b> <i>The spaces of non-contractible closed curves in compact space forms</i>
15:35 – 16:05	<b>V. Kaloshin</b> <i>On local Birkhoff conjecture for convex billiards</i>
16:10 – 16:40	<b>D. Chen</b> <i>Some examples of KAM-nondegenerate nearly integrable systems with positive metric entropy</i>
16:40 – 17:00	<b>Кофе-брейк / Coffee-break</b>
<i>Председатель: В. Ю. Калошин – Chairman: V. Kaloshin</i>	
17:00 – 17:30	<b>L. Lerman</b> <i>Nonautonomous dynamics: Anosov's heritage in action</i>
17:30 – 18:00	<b>D. Turaev</b> <i>Averaging over a non-ergodic subsystem</i>
18:00	<b>Фуршет (холл 9-го этажа) Welcome party (9<sup>th</sup> floor, lobby)</b>

**Вторник, 20 декабря – Tuesday, December 20**

Заседания проходят в конференц-зале на 9-м этаже МИАН  
Talks take place in the conference hall at Steklov Mathematical Institute (9<sup>th</sup> floor)

**Председатель: В. З. Гринес – Chairman: V. Grines**

**9:00 – 9:45 A. Zorich (joint with A. Eskin, M. Kontsevich, M. Möller)**

*Lower bounds for Lyapunov exponents of flat bundles on curves*

**10:00 – 10:45 S. Marmi**

*Diophantine type of interval exchange maps and translation surfaces*

**10:45 – 11:15 Кофе-брейк / Coffee-break**

**Председатель: С. Марми – Chairman: S. Marmi**

**11:15 – 12:00 B. Weiss**

*Smooth models and the Anosov – Katok method*

**12:10 – 12:40 I. Babenko**

*What is the area of a finitely presented group and what does this area depend on*

**12:50 – 13:20 T. Smirnova-Nagnibeda (joint with R. Grigorchuk, D. Lenz)**

*Group actions, subshifts and spectra*

**13:20 – 15:00 Обед / Lunch break**

**Председатель: Т. В. Смирнова-Нагнибедда – Chairman: T. Smirnova-Nagnibeda**

**15:00 – 15:30 S. Pilyugin**

*Shadowing and inverse shadowing in group actions*

**15:35 – 16:05 S. Gonchenko**

*Anosov  $\varepsilon$ -orbits and mixed dynamics*

**16:10 – 16:40 S. Tikhomirov**

*Quantitative aspects of the shadowing property*

**16:40 – 17:00 Кофе-брейк / Coffee-break**

**Председатель: В. В. Рыжиков – Chairman: V. Ryzhikov**

**17:00 – 17:30 J.-P. Thouvenot**

*A metric property of smooth dynamical systems*

**17:30 – 18:00 M. Skopenkov**

*Discrete complex analysis: convergence results*

*Среда, 21 декабря – Wednesday, December 21*

*Заседания проходят в конференц-зале на 9-м этаже МИАН*

*Talks take place in the conference hall at Steklov Mathematical Institute (9<sup>th</sup> floor)*

*Председатель: М. Е. Сапрыкина – Chairman: M. Saprykina*

**9:00 – 9:45**

**V. Kozlov**

*Non-integrability conditions for geodesic flows on homogeneous spaces of Fuchsian groups*

**10:00 – 10:45**

**P. Berger**

*Emergence and Para-Dynamics*

**10:45 – 11:15**

**Кофе-брейк / Coffee-break**

*Председатель: А. В. Клименко – Chairman: A. Klimenko*

**11:15 – 12:00**

**B. Fayad**

*Lebesgue spectrum for area preserving flows on the two torus*

**12:10 – 12:40**

**M. Saprykina**

*Isolated elliptic fixed points for smooth Hamiltonians*

**12:50 – 13:20**

**V. Ryzhikov**

*Homoclinic invariants of ergodic actions*

**13:20 – 14:20**

**Обед / Lunch break**

**15:00 – 18:30**

**Экскурсия в Московский Кремль**

**Excursion to Moscow Kremlin**

**19:00**

**Банкет / Conference dinner**

## Четверг, 22 декабря – Thursday, December 22

Заседания проходят в ауд. 427 ф-та математики НИУ ВШЭ  
Talks take place in room 427 at HSE Faculty of Mathematics

<b>Председатель: О. В. Починка – Chairman: O. Pochinka</b>	
<b>9:00 – 9:45</b>	<b>A. Neishtadt</b> <i>Long-term behaviour of slow-fast systems with passages through resonances: examples from charged particle dynamics</i>
<b>10:00 – 10:45</b>	<b>Xiangdong Ye</b> <i>Topological and measurable aspects of multiple ergodic averages</i>
<b>10:45 – 11:15</b>	<b>Кофе-брейк / Coffee-break</b>
<b>Председатель: А. И. Нейштадт – Chairman: A. Neishtadt</b>	
<b>11:15 – 11:55</b>	<b>B. Gurevich, S. Komech</b> <i>Deformation rate in dynamical systems</i>
<b>12:05 – 12:45</b>	<b>V. Oseledets</b> <i>Erdős measures on Euclidean space and <math>\hat{Z}^n</math></i>
<b>12:55 – 13:35</b>	<b>O. Pochinka</b> <i>On topological classification of Morse – Smale systems</i>
<b>13:35 – 15:00</b>	<b>Обед / Lunch break</b>
<b>Председатель: С. В. Гонченко – Chairman: S. Gonchenko</b>	
<b>15:00 – 15:30</b>	<b>I. Shilin</b> <i>Lyapunov unstable global attractors</i>
<b>15:35 – 16:05</b>	<b>A. Zhirov</b> <i>Some problems on pseudo-Anosov homeomorphisms</i>
<b>16:10 – 16:40</b>	<b>A. Okunev (joint with C. Bonatti, S. Minkov and I. Shilin)</b> <i>A <math>C^1</math> Anosov diffeomorphism with a horseshoe that attracts almost any point</i>
<b>16:40 – 17:00</b>	<b>Кофе-брейк / Coffee-break</b>
<b>17:00 – 18:00</b>	<b>Стеновые доклады (холл 2-го этажа)</b> <b>Poster session (2<sup>nd</sup> floor hall)</b>

### Стеновые доклады List of posters

**P. Akhmet'ev**

*Casson-type asymptotic invariants of knots in the Poincaré sphere*

**S. Dovbysh**

*Anti-integrable limit and non-existence of first integral in many-dimensional systems*

**V. Dryuma**

*Towards the theory of solutions of the flow equations of incompressible liquid*

**S. Efimov (joint with V. Sidorenko)**

*Non-integrable model describing some aspects of celestial bodies' dynamics in first order mean motion resonance*

**L. Efremova**

*Main subspaces of the space of  $C^1$ -smooth skew products of interval maps*

**T. Fomenko**

*On the development of Anosov's topological ideas in fixed point and coincidence theory*

**A. Kochergin**

*On discrete orbits for a cylindrical cascade with a Hölder function*

**S. Kryzhevich (joint with D. Cherkashin)**

*Shadowing and density of minimal points*

**S. Kuznetsov**

*Hyperbolic dynamics of physical systems*

**M. Lipatov (joint with A. Stepin)**

*On multiplicative ergodic theorem*

**A. Losev**

*Sufficient conditions of unstability of relay system equilibrium*

**S. Minkov (joint with A. Okunev)**

*Omega-limit sets of generic points of partially hyperbolic diffeomorphisms*

**I. Podvigin**

*Estimates of correlations in dynamical systems: from Hölder continuous to general observables*

**L. Rodina**

*On dynamics of discrete systems with random parameters*

**V. Sakbaev**

*Composition of random semigroups and the law of large numbers*

**T. Salnikova, A. Shuvalova, S. Stepanov**

*The coarse-grained entropy in the problem of the distribution of dust cosmic particles*

**M. Shamolin**

*Integrable variable dissipation systems on tangent bundle of multi-dimensional sphere*

**A. Shepelevtseva**

*Iterated monodromy groups and invariant trees*

**P. Sorokin, N. Chentsova**

*Doubling bifurcation of the leading elements of the Gauss R-method on a subsequence generated by the Sylvester procedure*

**A. Stepin (joint with I. Tsylin)**

*Estimates of resolvent perturbation of boundary value problems on a manifold*

**V. Tsegel'nik**

*Analytical properties of solutions of three-dimensional nonlinear dynamical system*

**I. Tsylin**

*Resolvent behavior of boundary value problems on domains with cracks*

**D. Volk (joint with J. De Simoi, C. Liverani, C. Poquet)**

*Fast-slow partially hyperbolic systems and pathological foliations*

**D. Zubov**

*Projections of orbital measures for classical Lie groups*

*Пятница, 23 декабря – Friday, December 23*

*Заседания проходят в ауд. 427 ф-та математики НИУ ВШЭ  
Talks take place in room 427 at HSE Faculty of Mathematics*

*Председатель: Р. И. Григорчук – Chairman: R. Grigorchuk*

**9:30 – 10:00**    **S. Tikhonov**  
*Generic mixing actions*

**10:10 – 10:50**    **M. Blank**  
*Typical points in chaotic dynamics*

**10:50 – 11:10**    **Кофе-брейк / Coffee-break**

*Председатель: С. В. Тихонов – Chairman: S. Tikhonov*

**11:10 – 11:55**    **R. Grigorchuk**  
*Dynamical constructions on the space of finitely generated groups  
and the concept of random group*

**12:05 – 12:45**    **L. Beklaryan**  
*Groups of diffeomorphisms of the line and circle.  
Structural theorems and almost nilpotency criteria*

**12:55 – 13:25**    **V. Fufaev**  
*Asymptotic analysis in one problem of singular perturbation theory*

**13:25 – 15:00**    **Обед / Lunch break**

*Председатель: М. Л. Бланк – Chairman: M. Blank*

**15:00 – 15:30**    **A. Glutsyuk**  
*On a model of Josephson effect, dynamical systems on two-torus  
and Heun equations*

**15:35 – 16:05**    **A. Kachurovskii**  
*Rates of convergence in ergodic theorems for Anosov diffeomorphisms*

**16:10 – 16:40**    **A. Dymov**  
*Functional Limit Theorem for the determinantal sine-process*