

**Yurii Mikhailovich Ishbulatov**  
phD in physics and mathematics

**University positions (Saratov State University):**

- Senior Lecturer (2021 – now)
- Engineer (2015-2019)
- Chief laboratory assistant (2012-2015)

**Scientific positions:**

- Researcher, Institute of RadioEngineering and Electronics of RAS
- Researcher, Regional Scientific and Educational Mathematical Center of the P.G. Demidov Yaroslavl State University

**Scientific interests:**

- Mathematical modeling
- Data analysis
- Radiophysical engineering
- Live system

**Scientific metrics and IDs:**

- h-index 4 (WoS), 7 (RISK)
- RISK ID: 829775
- WOS ResearcherID: I-1506-2016
- Scopus AuthorID: 57160264200
- ORCID: 0000-0003-2871-5465

**Main publications:**

- 1) Karavaev A.S., Ishbulatov Yu.M., Ponomarenko V.I., et al. Autonomic control is a source of dynamical chaos in the cardiovascular system // *Chaos*. - 2019. –Vol. 29. – 121101. DOI: 10.1063/1.5134833.
- 2) Karavaev A.S., Ishbulatov Y.M., Prokhorov M.D., et al. Simulating Dynamics of Circulation in the Awake State and Different Stages of Sleep Using Non-autonomous Mathematical Model With Time Delay // *Frontiers in Physiology*. - 2021. –Vol. 11. - 612787. DOI: 10.3389/fphys.2020.612787.
- 3) Ishbulatov, Y.M., Karavaev, A.S., Kiselev, A.R. et al. Mathematical modeling of the cardiovascular autonomic control in healthy subjects during a passive head-up tilt test // *Scientific Reports*. - 2020. – Vol. 10. - 16525. DOI: 10.1038/s41598-020-71532-7.
- 4) Karavaev A.S., Ishbulatov Y.M., Ponomarenko V.I. et al. Model of human cardiovascular system with a loop of autonomic regulation of the mean arterial pressure // *Journal of American Society of Hypertension*. – 2016. – Vol. 10(3). –P. 235-43. DOI: 10.1016/j.jash.2015.12.014.
- 5) Prokhorov M.D., Karavaev A.S., Ishbulatov Y.M. et al. Interbeat interval variability versus frequency modulation of heart rate// *Physical Review E*. - 2021. - Vol. 103. -042404. DOI: 10.1103/PhysRevE.103.042404
- 6) Караваев А.С., Ишбулатов Ю.М., Киселев А.Р. и др. Модель сердечно-сосудистой системы человека с автономным контуром регуляции среднего артериального давления // *Физиология человека*. - 2017. - Т. 43. - №. 1. - С. 70-80. DOI: 10.7868/S0131164616060096.
- 7) Ишбулатов Ю.М., Караваев А.С., Пономаренко В.И. и др. Сравнение методов оценки параметров системы барорефлекторного контроля среднего артериального давления //

- Известия Российской академии наук. Серия физическая. - 2016. -Т. 80. -№ 2. -С. 202-207. DOI: 10.7868/S0367676516020113.
- 8) *Ишбулатов Ю.М., Караваяев А.С., Сергеев С.А., и др.* Фазовая синхронизация колебаний контуров вегетативной регуляции кровообращения в математической модели сердечно-сосудистой системы // *Нелинейная динамика.* - 2017. - Т. 13(3). - С. 381-397. DOI: <https://doi.org/10.20537/nd1703006>.
  - 9) *Karavaev A.S., Skazkina V.V., Ishbulatov Yu.M. et al.* Application of the coupling detection to the analysis of the low-frequency rhythms in the autonomic control of circulation // *Cybernetics and Physics.* - 2019. – Vol. 8(3). –P. 128-131. DOI: 10.35470/2226-4116-2019-8-3-128-131.
  - 10) *Karavaev A.S., Ishbulatov Yu.M., Borovkova E.I. et al.* Reconstructions of model equations of time-delay system from short experimental time series // *International Journal of Modeling, Simulation, and Scientific Computing.* - 2020. – Vol. 11(2). - 2050014. DOI: 10.1142/S1793962320500142.

***Grants and research projects:***

- 1) Project Lead for project No. 9002GU / 2015 of the Bortnik Foundation; executive for projects of the Russian Foundation for Basic Research No. 19-32-90206, 19-02-00071, 18-07-00205 and others; executive for projects of the Russian Science Foundation No. 19-12-00201, 14-12-00291, 18-74-10064; executive for Mega grants 14.Z50.31.0044 and 075-15-2019-1885.