# Pengfei Wang

## Personal Details

Gender	Male
Nationality	Chinese
Data of Birth	3 July 1989
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## Education

- 2019-2021 **Master of Science (M.S)**, *Moscow Institute of Physics and Technology(MIPT)*, Russia. Phystech School of Applied Mathematics and Informatics
  - o Applied Math and Computer Science (Thesis)
  - o GPA : 9.17/10.0
  - o Rank : Top 2%
- 2011-2018 **Bachelor of Science (B.S)**, *Lomonosov Moscow State University(MGU)*, Russia, . Faculty of mechanics and mathematics
  - o Mathematics and Computer Science
  - o Thesis:"Probability measures in Tychonoff space"
  - o Supervisor: Prof.Yuri. Sadovnichiy
  - o GPA: 4.03/5.0
  - o Rank: Top50%

## Competition

2011 Undergraduate Entrance Competition for International Students .Lomonosov Moscow State University o Rank 1/300.(Mathematics)

### Research

2020-2021 **Coalitional Stability of the Tripolar World**, . Under Prof. Danil Musatov Coalitional Stability of a bipolar world is well-studied, For tripolar world, we study a model of the different number of agents living in three cities as a tripolar world with one city lying in the midpoint of the other two cities. I Proved that any stable configuration in tripolar world must belong to one of three types: Union, Federaion, or Mixed structure.

### $06-09.2020 \quad \mbox{Behavior on the size of Induced Subgraphs of the binomial random graphs} \ .$

#### Under Prof. Maksim Zhukovskii

What is the maximum  $\mu$ ,  $k \in N$ , such that a.a.s., for  $\forall$  k, the set of sizes of k-vertex induced subgraphs of G(n,p) contains a full interval of length  $\mu$ ?. we already knew when  $K < c \log n$ , then  $\mu = \binom{k}{2} + 1$ . and when  $K > \varepsilon n$ . we have  $\mu = \Theta(\sqrt{(n-k)n \ln \binom{n}{k}})$ , my goal is to study the behavior of  $\mu$ , when  $c \log n < k < \varepsilon n$ .

#### 2014–2018 Probability measures in Tychonoff Space.

Supervisor Prof.Yuri. Sadovnichiy

Theory of topological spaces of probability measures is an important area of categorial topology. Under Prof. Yuri. V. Sadovnichiy's guidance I investigated the properties of metrizability of Tychonoff spaces of probability measure  $(P(X), P(\rho))$  and proved that Tychonoff space of probability measures is a space with \*-weak topology.

### Teaching

- 2020 Fall Undergraduate Teaching Assistant MIPT o Elementary Number Theory – Computer Science
- 2020 Fall Graduate Teaching Assistant MIPT o Discrete Structure – Advanced Combinatorics

## Grant/Scholarship

- 2020 Russia Government 5-100 Program Grant for Research Project. No.100D
- 2020 Grant for Junior Researcher
- 2020 MIPT Academic scholarship for Excellent Students
- 2019-2021 Russian Government Scholarship

## Computer skills

Programming Python, C languages

#### Language skills

Chinese Native speaker English Fluent in writing and speaking Russian Fluent in writing and speaking

## Achievements and extra curricular activities

- Internship at International Office MIPT
- Chairman of Chinese club of Students Union MGU
- Co-founder of mini-educational company
- Representation at the university in numerous football, and badminton tournaments
- Volunteer at China and Russia University Presidents Meeting
- Participation in waltz dance

### References

#### Prof.Danill Musatov.Moscow Institute of Physics and Technology

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#### Prof.Alex Dainiak.Moscow Institute of Physics and Technology

o email:dainiak@phystech.edu

#### Prof.Yuri.V.Sadovnichiy.Lomonosov Moscow State University

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