

# НАЦИОНАЛЕН СЕМИНАР ПО СТОХАСТИКА

*секция „Изследване на операциите, вероятности и статистика“*

Поредната сбирка на *Националния семинар по стохастика* ще се проведе на **3 юли 2024 г.** (сряда) от **14:00** часа в зала **503** на ИМИ-БАН. Доклад на тема:

## ***"Control Problems for Queuing Systems with Moving Servers"***

ще изнесе Asaf Hajiyevev (Azerbaijan National Academy of Sciences, Institute of Control systems).

**Abstract:** For queuing systems with moving servers, the control policy which means delays of a beginning service is introduced. In the capacity of efficiency index of systems is taken a customer's average waiting time before service. Although it seems that it is a paradoxical idea to delay the beginning of service, it has been proved that for some systems it gives a gain in a customer's average waiting time before service. The class of queuing systems for which it is advisable to introduce delays is described. The form of an optimal function minimizing the efficiency index is found. It is shown that if a distance between neighbor services has exponential distribution, then the gain in a customer's average waiting time before service equals 10% and independent of parameter of exponential distribution. For uniform distribution such gain equals 3.5% and also independent of parameter of uniform distribution. The criterion to define for which systems the gain is greater are given. Numerical examples demonstrating theoretical results are given.

Поканват се всички интересуващи се.