

Online Summer School on Geometry and Topology
Faculty of Science of University of Hradec Králové (Czech Republic)
& Mathematical Center in Akademgorodok (Novosibirsk, Russia)
July 7 - August 6, 2021



The tradition of Geometry Schools at UHK started in [2018](#) and [2019](#). At the time the first two schools were organized. About 140 international students attended the schools. The programme of each school involved several lecture mini-courses and short talks given by students. There also was plenty of time for students to explore the city of Hradec Kralove. The summer schools were organized as a part of the International Student Exchange Programme at UHK.

The 2021 summer school is held online and aims to keep the tradition of the summer schools at UHK alive. We strongly believe that next year the school will take place offline, in Hradec Kralove. For the time-being, school participants can become a part of the network that includes future participants of the 2022 school. We invite bachelor, master, and PhD students interested in mathematics and theoretical physics to participate.

The 2021 school programme includes the following short series of lectures:

- Introduction to geometric numerical methods (V. Salnikov, La Rochelle)
- Sheaf theory, localization and gluing (Z. Škoda, Zadar and UHK)
- Geometry of coherent states (Z. Škoda, Zadar and UHK)
- Contact geometry and thermodynamics (E. Schneider, UHK)
- Introduction to Computational Topology (Ya. Bazaykin, Novosibirsk)
- Homogeneous geometric structures (J. Gregorovič, UHK)
- Elements of representation theory (A. Kotov, UHK)
- Holonomy groups of pseudo-Riemannian manifolds (A. Galaev, UHK)

The students will have an opportunity to present short talks (not obligatory). Each participant will obtain a certificate that is a great bonus for those who desire to attend the school in 2022.

The 2021 school is organized in the framework of the International Student Exchange Programme at UHK and supported by the Mathematical Center in Akademgorodok under the agreement No. 075-15-2019-1675 with the Ministry of Science and Higher Education of the Russian Federation.

Registration deadline is June 20, 2021. Registration form: <https://www.uhk.cz/en/summerSchool20203>

For more information, please, email us at geometry@uhk.cz

Webpage: <https://prf.uhk.cz/geometry/School2021.htm>

Previous schools:

<https://prf.uhk.cz/geometry/School.htm>

<https://prf.uhk.cz/geometry/School2019.htm>

International Student Exchange Programme at UHK:

<https://www.uhk.cz/en/university-of-hradec-kralove/exchanges>

<https://www.uhk.cz/en/faculty-of-science/exchanges>