

On September 30, 2022, Dr. Anatoly Rybin – lead scientific researcher of the Laboratory of Deep Magnetotelluric Soundings (Director of the Research Station of the Russian Academy of Sciences in Bishkek) at the joint seminar of the RS RAS and the IPE RAS "Geological and geophysical monitoring of the Tien Shan lithosphere" made an oral presentation. The presentation was devoted to a review of electromagnetic studies of the structure and activity of fault zones at various areas in Russia. A.K. Rybin introduced the audience to advanced research in the field of studying fault zones by electromagnetic methods using example works of the Moscow, Novosibirsk and Irkutsk geoelectric schools. After that, the current results of geological-and-geophysical studies of the Issyk-Ata fault zone (the region of the spurs of the Kyrgyz Range in the Northern Tien Shan), carried out by the staff of the Research Station within the framework of the Russian Science Foundation project No. 22-27-00567 "Study of the internal structure and dynamics of active geological faults using a complex of electromagnetic soundings (on the example of the Northern Tien Shan)". At the same time, special attention was paid to the results of the field electrical survey work in 2022, carried out by the method of electrical resistivity tomography using the recently acquired Skala-48 measuring complex. The speaker presented new geoelectric models for the San-Tash, Boom and Tokbay profiles, crossing various segments of the active Issyk-Ata fault. These profile models are based on the materials of audiomagnetotelluric, magnetotelluric and electrotomographic soundings. In conclusion, A. Rybin outlined the tasks and ways of developing further research on the structure and dynamics of active fault zones in the Tien Shan.