Astronomy enters the period of Big Data and Data-Driven Discovery. Data bases increase every days with terabytes of new observations, and the catalogs start to contain milions of objects. Thus the most important thing is to see certain order in these enormous data stream, and next we should gain - from this order - a real, deeper understanding of what we see. We face the same problem in quasar research. Catalogs contain 200 000 well studies quasars, over 1 000 000 of quasars are identified, and the numbers are growing.

Quasars are the brightest persistent sources in the entire Universe. Gamma-ray bursts can be brighter but they shine for a few or a dozen of seconds, or much less. We now know that quasars are just special cases of extremely bright nuclei of distant galaxies, and their emission originates from the gasous material falling into the supermassive black hole located at the center of the host galaxy. This luminosity can exceed thousand times the luminosity of all stars of the host galaxy. The radiation and outflows from such an active nucleus modify the evolution of the whole galaxy due to the impact onto the interstellar material, including the star formation rate.

Different quasars have of course different luminosities, which is easy to understand since they differ with respect to the mass of the central black hole and the distance from us. However, stars differ between themselves not only with respect to the brightness and the distance, but they have diferent colors. And then the discovery came that stars form a stream on the color diagram which was later named stellar main sequence. This was supported by the detailed spectral classification. Finally, it was explained that the location of a star on the stellar main sequence is determined by the temperature of the stellar atmosphere.

Quasars also have their colors, and the corresponding classification also showed a pattern, named now *Quasar Main Sequence* although this sequence is not as narrow as the stellar main sequence. Quasars are much more complex than stars due to the lack of spherical symmetry - material flowing onto the black hole forms an accretion disk around the central black hole, and this disk is hotter closer to the black hole and cooler further out. What is more, quasars emit radiation not only in the optical band but accross the whole electromagnetic spectrum, from the radio band through the infrared, optical, and UV emission to X-rays and gamma-rays.Therefore, it is so difficult to establish what is responsible for the observed trend. The first understood essential parameter was the inclination of the symmetry axis with respect to the observer, and this was establised 30 years ago. But quasars seen at the same viewing angle are sttill not the same, so there is one more parameter of importance. So far it seemed that the key parameter is the ratio of the mass flowing toward the black hole to the black hole mass. We believe that the answer is different, and actually quite similar as in the case of stars. In our opinion, the key parameter is the maximum temperature of the accretion disk in a quasar. We think that this hottest region dominates the emission and it is more important than the other cooler parts of the disk, and thus practically determines the spectral classification. The aim of the project is to prove this hypothesis. We will do it through two different actions. We will calculate theoretically, whether this hottest disk part is indeed so dominating the other sources of emission in a given object and only this part mostly affects the surrounding. We will also collect available observations for numerous quasars with the aim to determine the maximum disk temperature in each quasar and to check, whether in the sources located at the same part of the Quasar Main Sequence this temperature is the same.