



FZU

Institute of Physics
of the Czech
Academy of Sciences

Invitation

to the seminar of Division of Elementary Particle Physics of the
Institute of Physics of the Czech Academy of Sciences



Dr. Petr Závada

Institute of Physics
of the Czech Academy of Sciences

Binary and multiple stellar systems from data analysis of the space observatory GAIA

Abstract: The occurrence of multiple stars, dominantly binaries, is studied using the Gaia-ESA catalog. We apply the statistical method that we have developed for the analysis of 2D patterns. The criteria for selecting multiple-star candidates are based on two parameters: angular separation and collinearity of proper motion. Radial separation is only used as a weaker additional constraint due to its limited accuracy. Due attention is paid to the accurate calculation of the background, which is a necessary input for evaluating the quality of the candidates. Our selection algorithm generates the catalog of candidates: 900 842 binaries, 5282 trinaries, and 30 quaternaries.

When: Thursday, November 30, 2023 at 2PM

Where: Main conference hall, Institute of Physics, Na Slovance 2, Prague 8

For more information, please see <https://indico.fzu.cz/event/217/>