

# Physics & Astronomy Colloquium

Presents



## Sergey Kalabanov

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Thursday, January 25, 2024  
12:10 pm, Webster Room 11

*This will be a remote talk.*

## “Meteor observations registered with meteor radar in Kazan Federal University, Russia”

The development of modern digital technologies and the availability of computing equipment and the element base of electronic components made it possible to create a modern radar installation based on the Skymet meteor radar. This installation allows detecting and registering radio echoes from ionized meteor trails. Unlike optical observations, where it is possible to register up to 100 meteor events per hour, meteor observations on upgraded radar of KFU produce from 600 to 10,000 meteors per hour, depending on the time of day and season years. On average, the number of daily registrations per year is about 45,000. The registration data allows estimating a number of meteor parameters:

- 1) angular coordinates (with an accuracy of about fractions of a degree), spatial coordinates of the meteor's combustion point in the atmosphere.
- 2) the apparent velocity of a meteor particle (with an accuracy of about 0.1-5%).
- 3) the intensity of the radio signal response (analogous to the optical brightness of a meteor).

*Host: Dr. Guy Worthey*

*ZOOM Information: Meeting ID: 965 8240 9398 • Passcode: physastro*