

Colloquium

SFB 956

Conditions and Impact of Star Formation

14 November 2022

Monday 3:30 pm

Physikalische Institute Köln

Lecture Hall I

Zülpicher Straße 77 | 50937 Cologne

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Let the Games begin: Quasars Populate the Early Universe

Quasars have been at the frontier of the known Universe since their early discovery more than 60 years ago. Today, astronomers have identified more than 400 quasars at cosmic dawn, at redshift $z > 5.5$, when the Universe was less than 1 Gyr old. The mere presence of such massive black holes in the early Universe is a stress-test for models of their formation and early growth. Furthermore, thanks to their luminosity, quasars can be used to pin-point some of the most massive galaxies at cosmic dawn, that appear to reside in prominent overdensities and protoclusters. This provides a unique opportunity to use quasars as laboratories to study the first steps in the life of massive galaxies. In this talk, we will review the observational challenges, the achievements and failures in the study of quasars at cosmic dawn, and discuss the observational outlook in the framework of the forthcoming facilities.

