

# PHYSIKALISCHES KOLLOQUIUM

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IM GROßEN HÖRSAAL



## **GROWING SUPERMASSIVE BLACK HOLES: REVEALING THE MONSTER'S DIET**

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Every regular galaxy in the universe hosts a supermassive black hole in its centre. Even though these giants have millions to billions of solar masses, they contribute only 0.1% to the mass of the surrounding galaxy. Yet, their masses are tightly related to the properties of the galaxies. How did these black holes grow in the first place? And why do the galaxies care about their black holes? In this talk I will give a tour of our understanding of the monsters in the centres of galaxies, show how we are able to observe and simulate their growth process, and discuss their significance in shaping the universe as we know it.