

# Physics Colloquium

**Prof. Anders Knospe  
Physics Department  
Lehigh University**

## **“The Little Bang: the Physics of Strongly Interacting Matter at Extreme Temperatures”**

*When two nuclei collide at very high energies, their constituent protons and neutrons are melted, producing a soup of subatomic particles called a quark-gluon plasma. This unique state of matter filled the universe in the first few microseconds after the Big Bang and has been created in high-energy collisions at the Relativistic Heavy Ion Collider and the Large Hadron Collider. Many different methods are used to probe this complicated system, including studies of its hydrodynamic flow, the enhancement of strange particle production, and the suppression of heavy, high-momentum, and short-lived particles. I will present an overview of ultra relativistic heavy-ion physics, including a discussion of the most important results in the field, a selection of recent developments, and a look ahead at the direction of high-energy nuclear physics in the coming decade.*

Anders Knospe received his bachelor's degree in physics from Pomona College and earned his Ph.D. in physics from Yale University. He was stationed at CERN as a postdoctoral scholar, first for the University of Texas at Austin and then for the University of Houston. He joined the faculty in the Department of Physics at Lehigh in fall 2020. Prof. Knospe has been a member of the STAR, ALICE, and sPHENIX collaborations, where he has used rare, short-lived, and heavy particles to probe the strongly interacting matter produced in high-energy heavy-ion collisions.

**Thursday, April 7, in LL 316 at 4:25 PM**

***For Zoom participation, please see information below:***

**Meeting ID: 972 1274 7894**

**Passcode: 631869**