



# PHYSIKALISCHES KOLLOQUIUM

des Fachbereichs Physik  
der Johann Wolfgang Goethe-Universität Frankfurt

Mittwoch, den 07.02.2018, 16 Uhr c.t.  
Großer Hörsaal, Raum \_0.111,  
Max-von-Laue-Str. 1



**Prof. Dr. Michael Wiescher**

Nuclear Science Laboratory, Department of Physics  
University of Notre Dame, USA

## SONDERKOLLOQUIUM Heraeus Stiftungsgastprofessur

*"Nucleosynthesis in First Stars –  
the on-set of Chemical Evolution"*

The first stars in our universe that emerged after the Big Bang provide the environment for converting the primordial fuel of hydrogen, helium, and lithium isotopes into heavier elements.

This conversion requires to bridge the mass gaps of stable nuclei at  $A=5$  and  $A=8$  with different reaction sequences to generate for the first time carbon-12 and oxygen-16, the building blocks of all biological life in our universe.

This talk will present the nuclear burning environment of these sites and the reaction path that initiated the build-up of more complex nuclei, eventually leading to the elemental abundance distribution as observed today.

Die Dozenten der Physik

local host: Prof. Dr. Rene Reifarth, reifarth@physik.uni-frankfurt.de