



Münchner Physik- Kolloquium

Sommer
2019

Physics of the bacterial flagellar motor

Dr. Ashley Nord, *Centre de Biochimie Structurale de Montpellier, France*

Monday, 27 May 2019, 17:15 h

Hörsaal H 030, Fakultät für Physik der LMU, Schellingstraße 4, München

Many species of bacteria actively propel themselves in a low Reynold's number environment via the rotation of one or more flagella. At the base of each flagella, you find Nature's version of the rotary motor, called the Bacterial Flagellar Motor (BFM). At a diameter of 50 nm and composed of about a dozen different proteins, the BFM is able to rotate at hundreds of hertz, change direction within milliseconds, and attain very high thermodynamic efficiencies. Moreover, the motor can sense the environmental conditions and dynamically adapt its power output accordingly. This talk will introduce some of the basic physical mechanisms underlying the operation of this remarkable molecular machine which drives bacterial motility, with a particular focus on the motor's ability to sense its mechanical environment.

Student event: Meet the speaker

We invite you to a **student-only** discussion-round with Dr. Ashley Nord before her Munich Physics Colloquium talk.

Be curious and feel free to ask any question.

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Room H 522 (5th floor), Fakultät für Physik der LMU, Schellingstraße 4, München

