



UNIVERSITÄT
LEIPZIG

Fakultät für Physik und
Geowissenschaften

Prof. Dr. C. Schnohr
Prof. Dr. J. Vollmer

Physics Colloquium

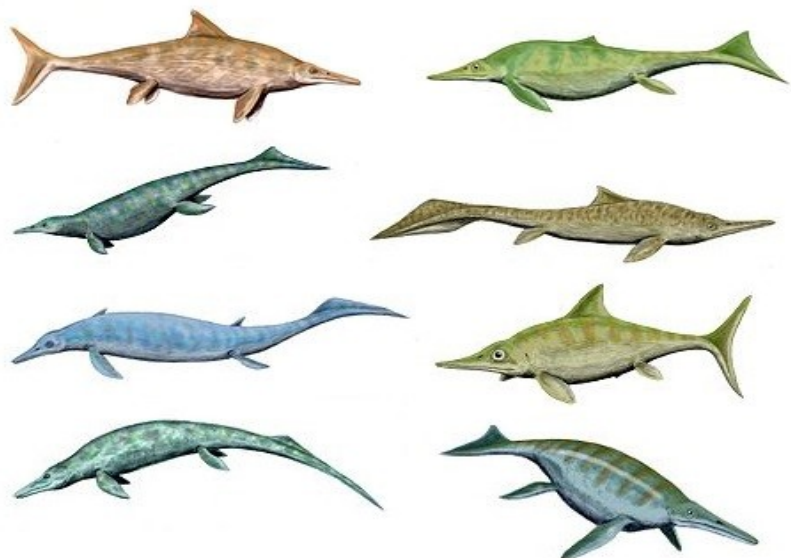
Tuesday, 24 November 2020 at 17:15

Prof. Dr. Joachim Krug

Universität zu Köln

How predictable is evolution?

The relative importance of determinism and contingency in biological evolution is the subject of a long-standing debate. In the words of Stephen J. Gould, if we could replay the tape of life on earth, would the outcome at all resemble the present biosphere? Recent work in the more modest arena of experimental evolution with microbes has begun to address some aspects of this question. In the colloquium I will introduce different notions of predictability that are relevant in this context, and describe factors that affect the stochasticity of the adaptive process in ways that can be quantified by mathematical models. In particular, the roles of the distribution of fitness effects, the constraints due to the structure of the space of genotypes, and the size of the adapting population will be discussed in some detail.



Online Colloquium broadcasted by BigBlueButton at

<https://meet.uni-leipzig.de/b/sch-hib-xbr-tdm>

