



# 学 术 报 告

**报告主题: The Chicxulub asteroid impact and the extinction of the dinosaurs**

**报 告 人: Birger Schmitz 教授**

**报告人单位: 隆德大学**

**报告时间: 11 月 12 日 (周三) 上午 10: 00**

**报告地点: 图书馆三楼报告厅**

**主 办: 实验技术中心、科技处、综合处、人教处**



**报告简介:** It is now 45 years since Physics Nobel Prize laureate Luis Alvarez and his son Walter Alvarez showed that the dinosaurs became extinct 66 million years ago because of the collision between Earth and a 10-km-sized asteroid. Dinosaurs had ruled higher life on land for 160 million years, and their demise opened for the mammals to expand, leading eventually to today's civilization upheld by sapiens. Here I will summarize some of the latest discoveries, e.g., regarding the 200-kilometer-sized Chicxulub crater in Mexico and remarkable earthquake-triggered tsunamis deposits worldwide that allow for a minute-by-minute reconstruction of what happened on Earth after the impact. Finally, I ask the question, would a dinosaur-based civilization have evolved instead of a sapiens civilization, had the asteroid missed Earth? Evidence for recurrent convergent evolution in the history of life gives a clue to this.

**报告人简介:** Birger Schmitz 教授是著名的地质学家和行星科学家, 在地外撞击事件的地球表生环境响应和地层中微陨石来矿物提取方法等方面, 均取得了卓越成就。他首次发现了 L 群球粒陨石母体裂解事件在地球岩石中的地球化学和矿物学记录, 为研究小行星带动力学过程开辟了新的途径。他还系统研究了显生宙不同时期灰岩中球粒陨石来源微陨石, 构建了首条球粒陨石物质输入地球的通量变化曲线, 为研究小行星带物质的迁移机制提供了基础性限定。此外, Schmitz 教授还在关键地质事件层地外物质示踪、地球古环境和沉积地球化学等方面展开了广泛而深入的工作。Schmitz 教授共发表论文一百余篇, 其中以第一作者或通讯作者在 Science (2), NG, NC, SA, PNAS, EPSL (8) 等杂志发表论文多篇。Schmitz 教授曾任瑞典地质学会主席, 欧洲全球探索基金、美国国家地理学会科学顾问委员会成员等职, 并于 2023 年获得了负有盛誉的国际陨石学会 (Meteoritical Society) 颁发的巴林杰奖 (Barringer Medal Award)。