
ERC grants awarded to three CU researchers

ERC CZ grants awarded to three CU researchers Among the funded projects is research of Greenland Ice Sheet

The Czech Republic's Ministry of Education, Youth and Sports has awarded promising researchers Czech ERC grants (entitled ERC CZ), providing funding and recognition (ie. lifeblood) for deserving top projects. On Thursday, the names of eight recipients from five institutions were announced: three grants were clinched by researchers at Charles University, amounting to funds in the tens of millions of crowns.



At Charles University, the fresh recipients are: Marek Stibal of the Faculty of Science, Zdeněk Dvořák from the Faculty of Mathematics and Physics, and Alessandro Testa of the Faculty of Social Sciences.

Marek Stibal's project, receiving an ERC CZ Consolidator Grant, will examine the microbial production and release of methane from the Greenland Ice Sheet and the implications for global warming. You can read the official project description here:

"Microbial Production and Release of Methane (CH₄) from the Greenland Ice Sheet". The project explores the basal environments of ice sheets produce and store large reserves of methane (CH₄), which have the potential to raise atmospheric CH₄ concentration and thus further climate warming, if released during periods of deglaciation. The Greenland ice sheet (GrIS), the largest ice mass in the Northern Hemisphere, is retreating rapidly, losing mass at over 400 km³ per year. Recent field measurements have shown subglacial CH₄ of microbial origin is released at the ice sheet margin. However, no estimate of the CH₄ footprint of the entire GrIS currently exists. The principal aim of this project is to quantify the potential of the GrIS bed to produce and release CH₄ – a potent greenhouse gas – and affect the global CH₄ cycle and climate. The underlying hypothesis is that global climate change and resulting increasing melting of the GrIS causes export of subglacial CH₄ of microbial origin to the atmosphere.

Zdeněk Dvořák's project, entitled "Algorithms and Complexity within and beyond Bounded Expansion", also received an ERC CZ Consolidator Grant.

The project focus on developing a fine-grained algorithmic theory within bounded expansion classes and study the consequences in more general settings. We will focus on the points in the bounded expansion hierarchy where structural phase transitions occur, develop algorithmic tools appropriate up to these points and determine which types of computational problems are no longer efficiently solvable beyond these points.

Alessandro Testa clinched a ERC CZ Starting Grant with a project called "The Re-Enchantment of Central-Eastern Europe". The description:

This research project embraces the perspective of a historical anthropology of religious beliefs and practices in post-socialist central-eastern Europe after 1989. Although the topic of religion in post-socialist countries has been rather explored in recent years, the originality of this project lies in its being built on a set of research questions that have received little attention so far.

Charles University extends congratulations to the recipients!