

CURRICULUM VITAE: dr. Franci Gabrovšek

Born: October 20th, 1968

Nationality: Slovene

Status: Partnership, 2 children

EDUCATION

- University diploma in Physics, Department of Physics, Faculty of Mathematics and Physics, University of Ljubljana, 1995.
- Dr. Rer. Nat (summa cum laude), Department of Physics, University of Bremen, Germany, 2000. For doctoral work he received a "Bremer Studienpreis", award of the University of Bremen given to the two best doctoral dissertations in natural sciences of 2000.

ACADEMIC TITLE:

prof. dr. Franci Gabrovšek, associate member of the Slovenian Academy of Sciences and Arts

MAIN RESEARCH AREAS:

- Numerical and conceptual models of speleogenesis and morphogenesis in karst.
- Cave microclimate, importance and transport of CO₂ in karst systems.
- Hydraulics of karst channels.
- The transfer of heat, passage of flood waves, and the transport of substances through the conductive structures of karst systems.
- The physics and chemistry of processes in karst.

In the past fifteen years he has developed several original numerical models, which simulate the evolution of karst aquifers in different environments. By using these models, he and his colleagues have discovered the key processes and evaluated the parameters influencing where and how fast a system of conduits develops in karst massifs. A review of these models and the results was published in 2005 in the book *Processes of Speleogenesis: a Modelling Approach*, which is considered the essential book in the field.

EMPLOYMENT:

- From 1996 to present: Karst Research Institute ZRC SAZU. Current title: Research Councillor.

- 1997-2000: Department of Physics at the University of Bremen, PhD student.
- 2003-2008 (part-time), University of Primorska.
- 2008-2010 (part-time), University of Nova Gorica.

MANAGERIAL FUNCTIONS AND SKILLS:

He has collaborated on many applied projects for the market – applying the science of karstology to the solving of practical issues (roughly 20 larger projects).

MANAGING AND GUIDING EARLY-STAGE RESEARCHERS TOWARDS FIRST-CLASS RESEARCH WORK:

He has supervised five completed PhD works at the University of Nova Gorica. Together with the PhD students, he developed new methods of observing and modelling the dynamics of underground waters, new numerical models of the evolution of karst aquifers, and models of the sources, transport and sinks of carbon dioxide in karst.

Between 2010 and 2012 he mentored the postdoctoral scholar Matthew Covington, an NSF scholarship holder from the USA, now a professor at the University of Arkansas. Together with Dr Covington, they researched the problem of the transfer of heat through large karst channels, and the problem of the sources and transport of carbon dioxide in underground rivers.

PEDAGOGICAL ACTIVITY:

- He is an associate professor for karstology at the University of Nova Gorica.
- He lectures the courses Basics of Karstology, Karstification Processes, and Measurements in Karstology in the Karstology postgraduate study programme at the University of Nova Gorica.
- He lectures in undergraduate and postgraduate programmes at the University of Primorska and the University of Nova Gorica.

FURTHER TRAINING ABROAD AND KNOWLEDGE EXCHANGE

- Doctoral study at the University of Bremen (1997-2000).
- Between 2000 and 2005 he spent six months at the University of Bremen researching the processes of early speleogenesis.
- He has been collaborated with scientists from Austria, Croatia, Italy, Bosnia and Herzegovina, Germany, Austria, China, Iran, USA, United Arab Emirates and Brazil.

MEMBERSHIP, EDITORIAL FUNCTIONS AND ORGANISATIONAL ACTIVITIES:

- He has been the editor-in-chief of the journal Acta Carsologica since 2011. Before that he was the assistant editor for ten years. Acta Carsologica is one of three international journals with an impact factor in the field of karstology.
- He is the chairman of the expert council of the Škocjan Caves Park.
- He has been a member of the organising committee of the International Karstological School since 1996. The International Karstological School is the biggest annual meeting of karstologists in the world. Each year, it is attended by over one hundred researchers and students from all over the world. He was the main organiser or co-organiser of this event four times (2001, 2009, 2011 and 2012).