Contribution ID: **410** Type: **Oral Presentation**

Linking processes, scales, and research communities to advance research on the most important porous medium we have: our Earth.

Friday, 4 June 2021 14:00 (15 minutes)

Harry Vereecken's career is built around the most important live-sustaining porous part of the Earth: the vadose zone, including soil. Understanding the processes in this medium and characterizing its properties is not only an intriguing scientific challenge, it is also vital for sustaining human societies. It is impossible to overrate the important functions of this porous medium and the services it provides. Its multitude of functions need to be understood holistically so that it can be managed and used productively and sustainably. Harry Vereecken's research contributes to this holistic understanding since it covers a wide range of topics. He investigated water flow and storage in the vadose zone, transport of nutrients and other chemicals, and their overall biogeochemical cycles. His interest went beyond a qualitative understanding of these processes by trying to quantify the many interacting processes and properties involved. Unfortunately, vadose zone and soil research is still hampered by a lack of experimental methods and techniques to investigate and observe processes as they take place in their undisturbed, natural state. Developing and applying process imaging methods at different scales is another important branch of his research. He investigated soil properties and processes at a large range of scales: from the small soil column scale to the field scale and up to the global scale. Harry made clear that up and downscaling is not only a technical mathematical problem but also a question of knowledge transfer between research communities that work at the different scales. Building bridges between research communities and organizing and setting up community initiatives such as the international soil modelling consortium and the TERENO network of terrestrial observatories is a unique contribution with major impact on scientific progress, not only in this specific domain of vadose zone and soil science, but very much also in other closely linked research domains.

Time Block Preference

Time Block A (09:00-12:00 CET)

References

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Student Poster Award

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Session Classification: MS25

Track Classification: (MS25) Subsurface Water Flow and Contaminant Transport Processes –Special Session in Honor of Harry Vereecken