Freie Universität Berlin

Geowissenschaftliches Kolloquium

A world beyond enhanced geothermal systems: Alternative unconventional geothermal energy utilisation

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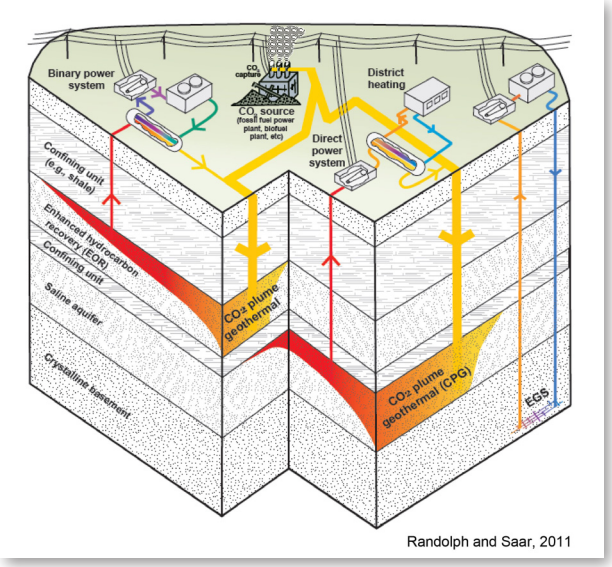
The efficiency of geothermal energy conversion is increased with new technologies such as using CO2 as the working fluid within the reservoir and the power plant. Another method to boost energy conversion efficiency is to use the geologic reservoir as a pre-heater to then superheat the produced fluid before it enters the turbine. In this presentation, I will show numerical modeling results that illustrate under what conditions these methods are favorable compared to standard water or brine based geothermal systems.



Martin Saar is Professor/Chair of Geothermal Energy and Geofluids at ETH-Zurich. He investigates geophysical fluid dynamics of reactive fluid and energy transfer. He received his Vordiplom from the University of Freiburg, M.S. degree from the University of Oregon, and Ph.D. from UC-Berkeley. From 2005 through 2014, he was the Gibson Chair of Hydrogeology and Geofluids at the University of Minnesota.

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