

Eawag Seminar Invitation

Data Science in Water Systems

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When **April 27, 11.00 – 12.00 a.m.**

Where **Forum Chriesbach, room C20, Eawag Dübendorf**

Abstract Environmental data, in particular, water related data, are growing in complexity, size, and resolution. Addressing the types of large, multidisciplinary problems related with water management requires the ability to leverage available data and information to inform decision making. Successfully synthesizing heterogeneous data from multiple sources to support holistic analyses and extraction of new knowledge requires application of Data Science. In this paper, we present the origins and a brief history of Data Science. We revisit prior efforts to define Data Science and provide a more modern, working definition. We describe the new professional profile of a data scientist and new and emerging applications of Data Science within Water related Sciences. We conclude with a discussion of current challenges for Environmental Data Science and suggest a path forward in the specific context of water cycle related problems.