M27: Machine Learning for soil mapping

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This masterclass introduces methods and software for management, analysis and mapping of soil characteristics within the R environment for statistical computing. The focus is on digital soil mapping using supervised machine learning algorithms, such as random forest and gradient boosting. Methods are illustrated with case studies. Participants will also learn to apply the methods themselves in a computer practical, including methods to map soil functions from soil and land characteristics. The masterclass aims at soil and environmental scientists who wish to learn more about the theory and practice of digital soil mapping. Lecturers are experienced digital soil mappers and pedometricians.