

Big geographic data: detecting land cover changes from satellite imagery

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The approach to many problems in environment and Earth sciences has fundamentally changed with the exponential growth in the availability of global geographic data over the last decade. In particular, multi-spectral images of increasingly finer spatial resolution over extended time series have enhanced land cover change detection. This is a clear example of big data analysis that requires efficient algorithms and dedicated computation platforms. In this talk, some examples of land cover change detection problems will be discussed. Practical solutions using freely accessible cloud platforms to apply well-known statistical techniques to satellite imagery will be described.