Townsend–ImgSPEC: Cloud-Based On-demand Spectroscopy Processing

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• There is an increasing flood of data such as imaging spectroscopy (aka hyperspectral) data available to the scientific community
• Because of its high dimensionality, hyperspectral imagery has great potential for both biodiversity and ecosystem research
• There is an ever-growing community of who want to incorporate the products derived from these data sets into their research
• These users may not have the resources to generate products from hyperspectral imagery on their own (for example, functional diversity)
• ImgSPEC is a prototype of an open-source cloud-based processing system that enables image and algorithm discovery, as well as on-demand product generation