



## **Preliminary tests of a portable VNIR hyperspectral camera on rock surfaces**

Marc-Henri Derron and Michel Jaboyedoff

University of Lausanne, ISTE, Lausanne, Switzerland (marc-henri.derron@unil.ch)

Hyperspectral cameras are actually pushbroom line-scanner. For groundbased acquisitions, they require a motorized rotating platform and often a logistics (external batteries and computer) quite heavy for real fieldwork. In 2018, a new small and handy camera was proposed on the market, the Specim IQ. It covers visible and near infrared bands (400-1000 nm), with a spectral resolution of 7 nm (204 spectral bands), a spatial sampling of 512x512 pixels, for a total weight of 1.3 kg (+ a photo tripod).

We proceeded to some tests on various rocks (granite, peridotite, metamorphic gneisses, limestone, marble and detritic rocks) in outdoor conditions. Spectralon plates were used for spectrum referencing. The goal of these preliminary experiments is to identify the potential of this device to distinguish rock types, surface weathering stages, and the limitations due to light conditions and incidence angles.