Visible band remote sensing at night: challenges and new opportunities

Christopher Kyba, Leibniz Institute of Freshwater Ecology and Inland Fisheries

Artificial light at night is the most obvious signature of human activity available via remote sensing. The quality of nighttime imagery improved dramatically in 2012, with the launch of the VIIRS Day-Night Band on Suomi NPP, and with the addition of the NightPod instrument to the international space station. In this talk I review these two instruments, their abilities and shortcomings, and outline how VIIRS DNB data could potentially be used to measure optical thickness at night.