Advances in Forest Fire Behaviour Modelling Using Remote Sensing

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Deadline for manuscript submissions:
closed (19 July 2023)

Message from the Guest Editors

Remote sensing tools and methods are starting to play an important role in the acquisition of a variety of data and in the estimation of such parameters at finer spatial scales, so they can be used as input in fire behavior models, where bulk density of canopy, understory and surface fuels must be estimated and quantified at voxel level, and fuel moisture content, from leaves, pine needles and fine roundwood at tree or patch level. This multiscale concept can only be achieved by using different types of acquisition devices and techniques capable to produce models at distinct levels of detail. The wide range of platforms (satellites, aerial, UAS and field-based) and sensors (multi and hyper-spectral, RADAR, LiDAR) nowadays available for data acquisition offer excellent prospects for addressing this multiscale problem.

In this special issue, submissions describing new advances in data acquisition and methods for fire behaviour modelling, including integration of platforms and sensors, estimation of fuel parameters, analyses of factors affecting fire behaviour, and other topics involving the use of remote sensing data, are encouraged and welcome.

mdpi.com/si/75266

Special issue