



Characterization of mid-latitude clouds at SIRTa

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Ground-based remote sensing observatories have a crucial role to play in providing data to improve our understanding of atmospheric processes, to test the performance of atmospheric models and to validate space-borne observations. Institut Pierre Simon Laplace, a French research institute in environmental sciences, created the Site Instrumental de Recherche par Télédétection Atmosphérique (SIRTa), an atmospheric observatory with these goals in mind. Today SIRTa, located 20 km south of Paris, operates a suite a state-of-the-art active and passive remote sensing instruments dedicated to routine monitoring of cloud and aerosol properties, and key atmospheric parameters. In this presentation we'll describe the cloud properties (e.g. macrophysics, optical depth, thermodynamic phase) retrieved from SIRTa observations and the related algorithms. We'll show statistics of mid-latitude cloud properties derived from 2 years of routine radar and lidar measurements.