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**Ground-based and Satellite Retrieved Aerosol Properties Downwind of the 2013 California Rim Fire U.S.A.** DAMBAR AIR, WILLIAM ARNOTT, JAMES BARNARD, MADHU GYAWALI, Department of Physics, University of Nevada Reno — Wildfires are a common feature of western U.S. ecology. This presentation describes the radiative properties of the Rim Fire plume as it passed over Reno, NV in August 2013 and clear sky days for comparison. Aerosol physical and optical properties were obtained from ground based instruments, the Multifilter Rotating Shadowband Radiometer (MFRSR) and the CIMEL sun photometer operated as part of the NASA AERONET, MODIS satellite instruments, and in-situ measurements from photoacoustic (PA) instruments. Optical properties retrieved with the MFRSR show excellent agreement with those obtained with the CIMEL. However, satellite measurements indicate significant departure from the ground based measurements. The MFRSR retrieved single scattering albedo (SSA) of the Rim fire decreases with wavelength, from 0.91 at 415 nm to 0.86 at 870 nm. It was noteworthy that the SSA values from PA measurements and from the MFRSR retrievals were in agreement during the Rim fire; in contrast, they were very different for clean day. This presentation provides useful assessment of satellite retrieved AOD and determination of the aerosol optical and physical properties for the Rim Fire.

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