Susan
Kulawik
BAER Institute, 625 2nd Street, Suite 209, Petaluma, CA, USA
Yu-Wen Chen, University of Colorado, Boulder, CO
Sebastian Schmidt, University of Colorado, Boulder, CO
James McDuffie, Jet Propulsion Laboratory, Pasadena, CA
Chris O'Dell, Colorado State University, Fort Collins, CO
Steve Massie, University of Colorado, Boulder, CO
Matthaeus Kiel, Jet Propulsion Laboratory, Pasadena, CA
Rob Nelson, Jet Propulsion Laboratory, Pasadena, CA
Kevin W. Bowman, Jet Propulsion Laboratory, Pasadena, CA
Poster
3d-clouds effects result from scattering from clouds outside the field of view. These effects have previously been shown to result in a bias in estimate of carbon dioxide on the order of 0.4 ppm for good quality, bias-corrected OCO-2 observations affected by 3d-clouds (Massie et al., 2021). In this paper we directly retrieve 3d-clouds from OCO-2 synthetic and actual radiances utilizing a spectral parametrization of 3d-clouds (Schmidt et al., 2023). We find that retrieving 3d-clouds improves carbon dioxide biases in scenes affected by 3d-clouds over ocean but does not improve XCO2 over land.
Meeting homepage
IWGGMS-20 Workshop
Download to PDF