Presentation:  **Transport of Cs-137 from Boreal Biomass Burning in Summer of 2010**

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Abstract:

The summer of 2010 was a severe fire season in western Russia. Wildfires were detected in the Bryansk region, raising concerns that radionuclide contamination from the Chernobyl accident could be resuspended in the atmosphere. We simulate the transport of passive and particulate tracers of biomass burning from this region using the GEOS5 GOCART model driven by assimilated meteorology. Biomass burning emissions are based on MODIS fire detections. We validate the model against aerosol optical depth from MODIS. Using a range of estimates for Cs-137 emissions during wildfires, we estimate the downwind concentration and deposition of Cs-137 based on the emission ratios of Cs-137 to the simulated tracers. We discuss the sensitivity of our results to the location of the fires and the fraction of Cs-137 resuspended.