

Fraction of AERONET AODs inside the $N\%$ credible interval
based on MODIS BAR uncertainty estimates

	$N = 50\%$	$N = 80\%$	$N = 90\%$	$N = 95\%$	$N = 99\%$
MODIS DT EE based, all retrievals	40.5 %	68.4 %	79.8 %	86.7 %	94.3 %
All retrievals	59.5 %	84.6 %	91.4 %	94.7 %	97.9 %
$0.0 < \text{AERONET AOD} < 0.1$	66.8 %	89.7 %	94.7 %	97.0 %	99.0 %
$0.1 < \text{AERONET AOD} < 0.2$	57.4 %	85.1 %	92.3 %	95.8 %	98.6 %
$0.2 < \text{AERONET AOD} < 0.3$	52.2 %	80.3 %	89.2 %	93.6 %	97.5 %
$0.3 < \text{AERONET AOD} < 0.5$	46.0 %	74.4 %	84.3 %	89.8 %	95.8 %
$0.5 < \text{AERONET AOD} < 1.0$	39.1 %	65.2 %	76.6 %	83.6 %	91.9 %
$1.0 < \text{AERONET AOD} < 2.5$	29.2 %	52.3 %	64.1 %	73.3 %	84.0 %
$2.5 < \text{AERONET AOD} < 5.0$	23.2 %	44.8 %	56.0 %	64.5 %	75.7 %