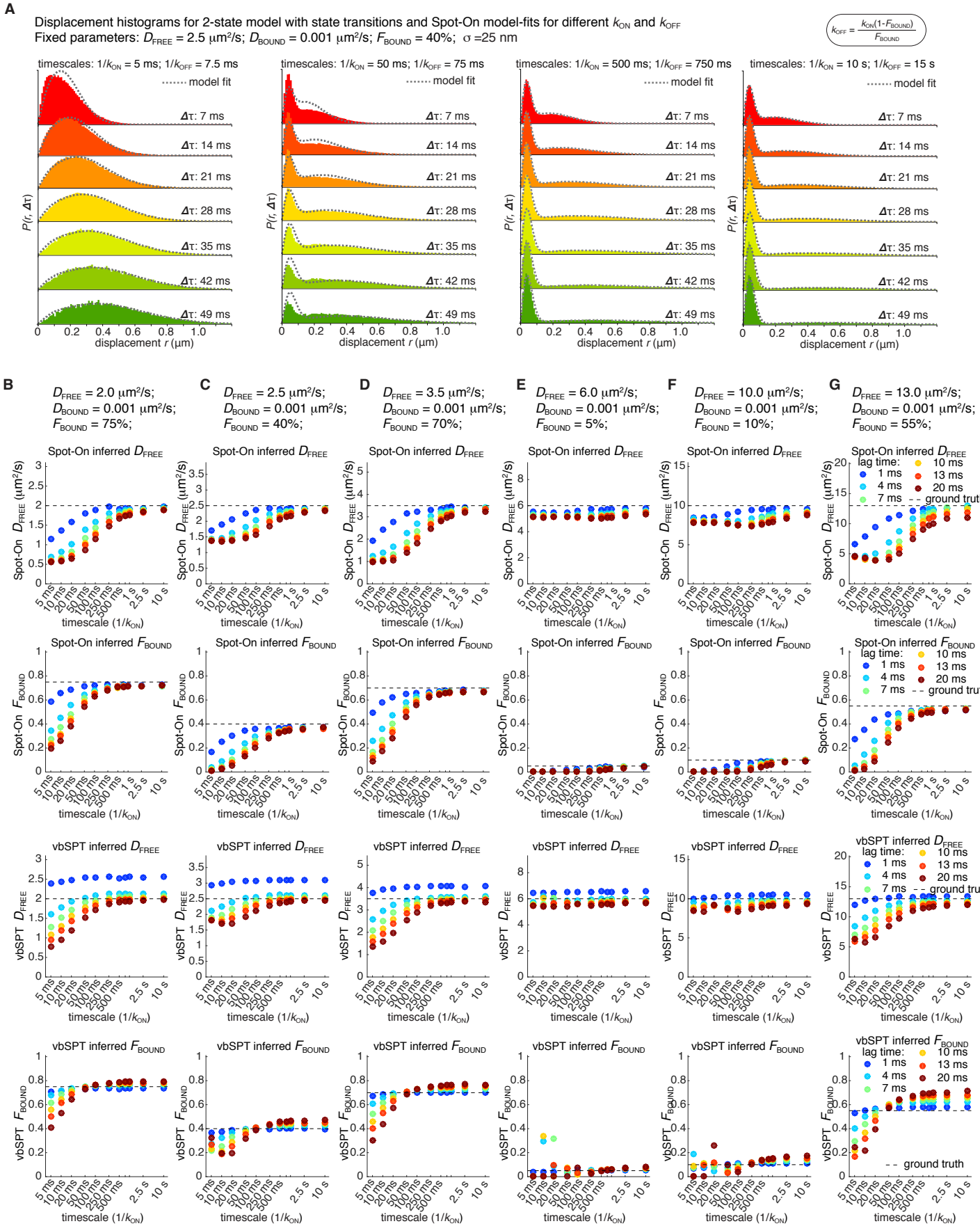
A
Displacement histograms for 2-state model with state transitions and Spot-On model-fits for different k_{ON} and k_{OFF}
Fixed parameters: D_{FREE} = 2.5 μm²/s; D_{BOUND} = 0.001 μm²/s; F_{BOUND} = 40%; σ =25 nm
$k_{OFF} = \frac{k_{ON}(1-F_{BOUND})}{F_{BOUND}}$
timescales: 1/k_{ON} = 5 ms; 1/k_{OFF} = 7.5 ms
timescales: 1/k_{ON} = 50 ms; 1/k_{OFF} = 75 ms
timescales: 1/k_{ON} = 500 ms; 1/k_{OFF} = 750 ms
timescales: 1/k_{ON} = 10 s; 1/k_{OFF} = 15 s
model fit
Δτ: 7 ms
Δτ: 14 ms
Δτ: 21 ms
Δτ: 28 ms
Δτ: 35 ms
Δτ: 42 ms
Δτ: 49 ms
P(r, Δτ)
displacement r (μm)
B
D_{FREE} = 2.0 μm²/s; D_{BOUND} = 0.001 μm²/s; F_{BOUND} = 75%;
C
D_{FREE} = 2.5 μm²/s; D_{BOUND} = 0.001 μm²/s; F_{BOUND} = 40%;
D
D_{FREE} = 3.5 μm²/s; D_{BOUND} = 0.001 μm²/s; F_{BOUND} = 70%;
E
D_{FREE} = 6.0 μm²/s; D_{BOUND} = 0.001 μm²/s; F_{BOUND} = 5%;
F
D_{FREE} = 10.0 μm²/s; D_{BOUND} = 0.001 μm²/s; F_{BOUND} = 10%;
G
D_{FREE} = 13.0 μm²/s; D_{BOUND} = 0.001 μm²/s; F_{BOUND} = 55%;
Spot-On inferred D_{FREE}
Spot-On inferred F_{BOUND}
vbSPT inferred D_{FREE}
vbSPT inferred F_{BOUND}
Spot-On D_{FREE} (μm²/s)
Spot-On F_{BOUND}
vbSPT D_{FREE}
vbSPT F_{BOUND}
timescale (1/k_{ON})
5 ms
10 ms
20 ms
50 ms
100 ms
250 ms
500 ms
1 s
2.5 s
10 s
lag time:
1 ms
4 ms
7 ms
10 ms
13 ms
20 ms
ground truth