Malaysia Airlines MH370

March 8
Plane Goes Missing

March 18
Search Begins

Present Day
Still not found
How Will Area A Be Reshaped and Relocated Over Time?
How Should We Go About the Search?🔍
Advection, the “Drifting” Effect

Ocean Surface Velocity

Latitude (Per Degree)

Longitude (Per Degree)

Fast

Slow
What makes a good algorithm?

1. Probability distribution
2. Coverage distribution
Lawnmower Method Simulation

t = 0.07
DSMC Simulation

t = 0.27
DSMC vs Lawnmower (Uniform)

# of targets remaining

Time

Lawnmower

DSMC