

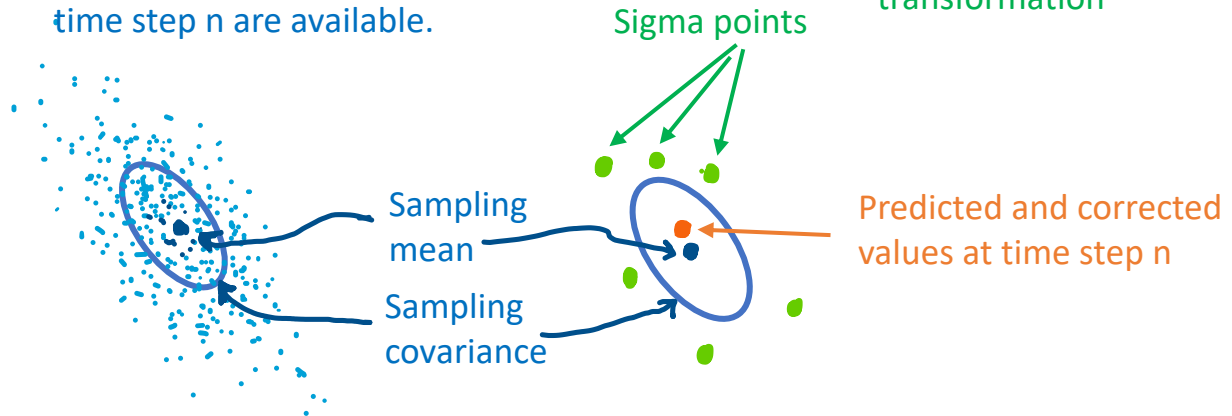
Input
System of Differential equations
Initial measured data
and initial guess model parameters

...
Previous estimates
and covariance at time
step n

Time step n:

Hypothetical dataset if
multiple observations at
time step n are available.

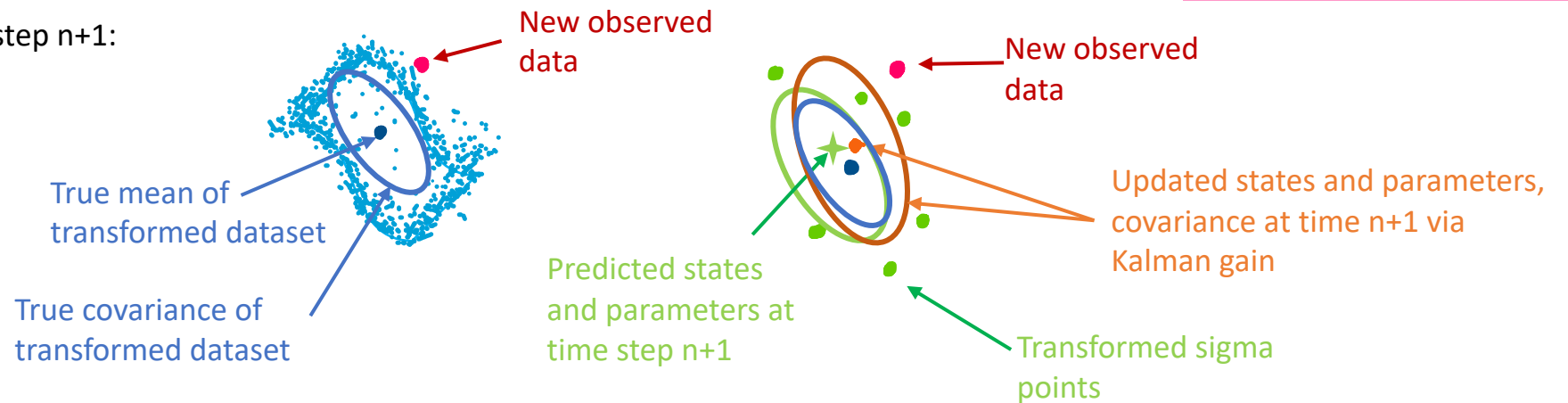
Only one observation at time step n
necessitates the use of Unscented
transformation



Dynamical model
prediction

Correction using new
observed data

Time step n+1:



Each dot represents a vector of states and parameters.
Oval represents the covariance.