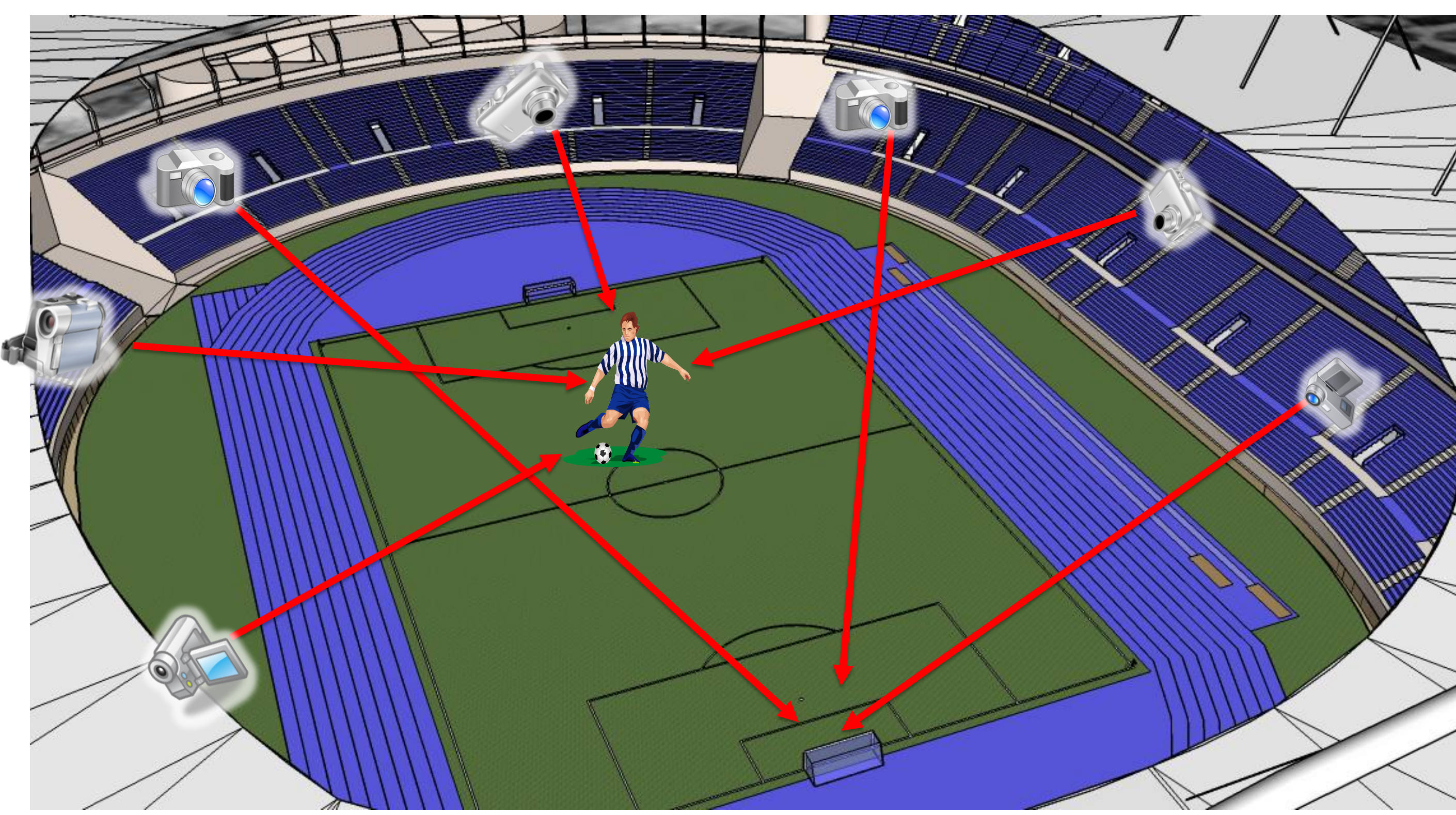


FOCUS: Clustering Crowdsourced Videos by Line-of-Sight

Puneet Jain, Justin Manweiler, Arup Acharya, and Kirk Beaty

Motivation

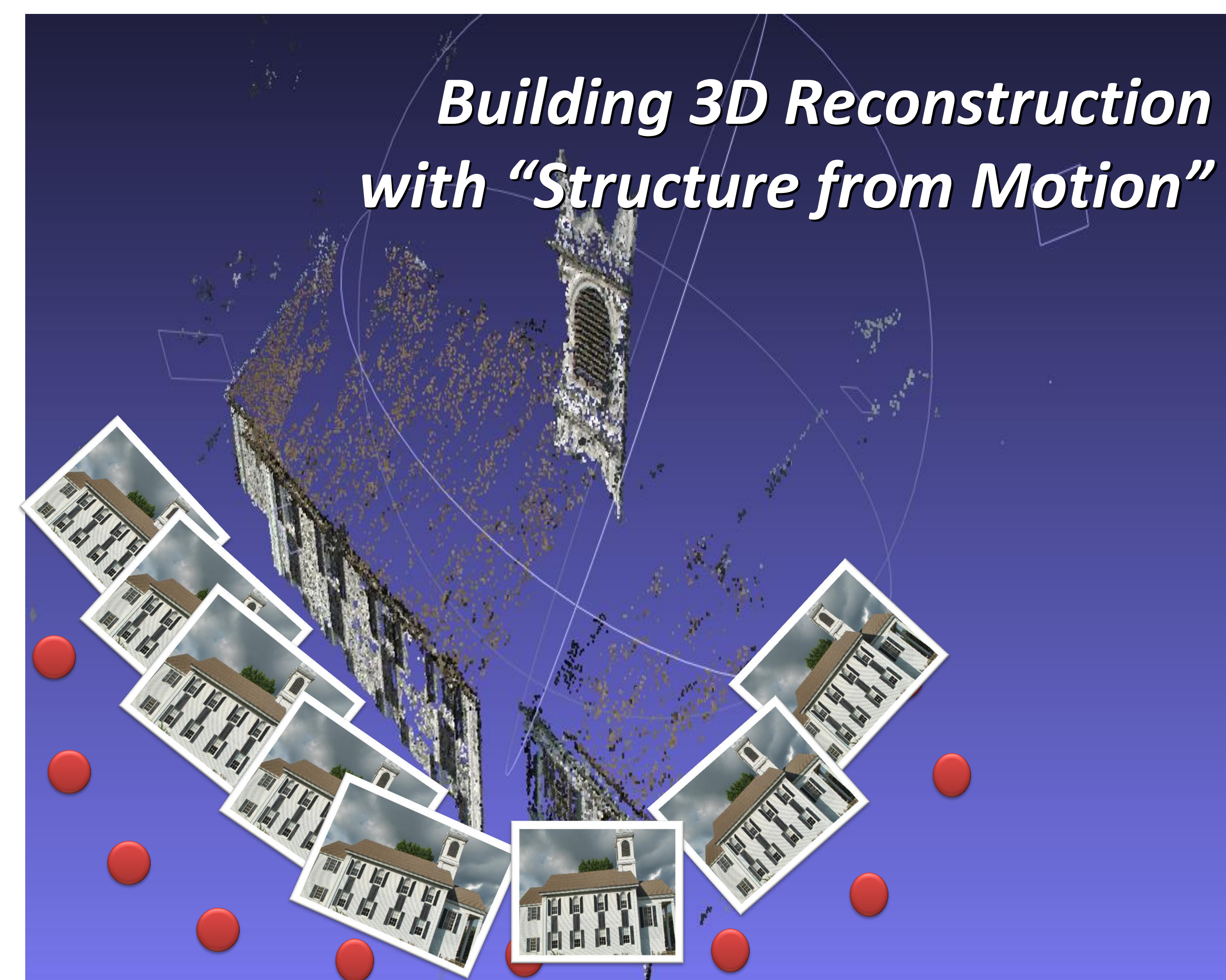


Live Dashboard



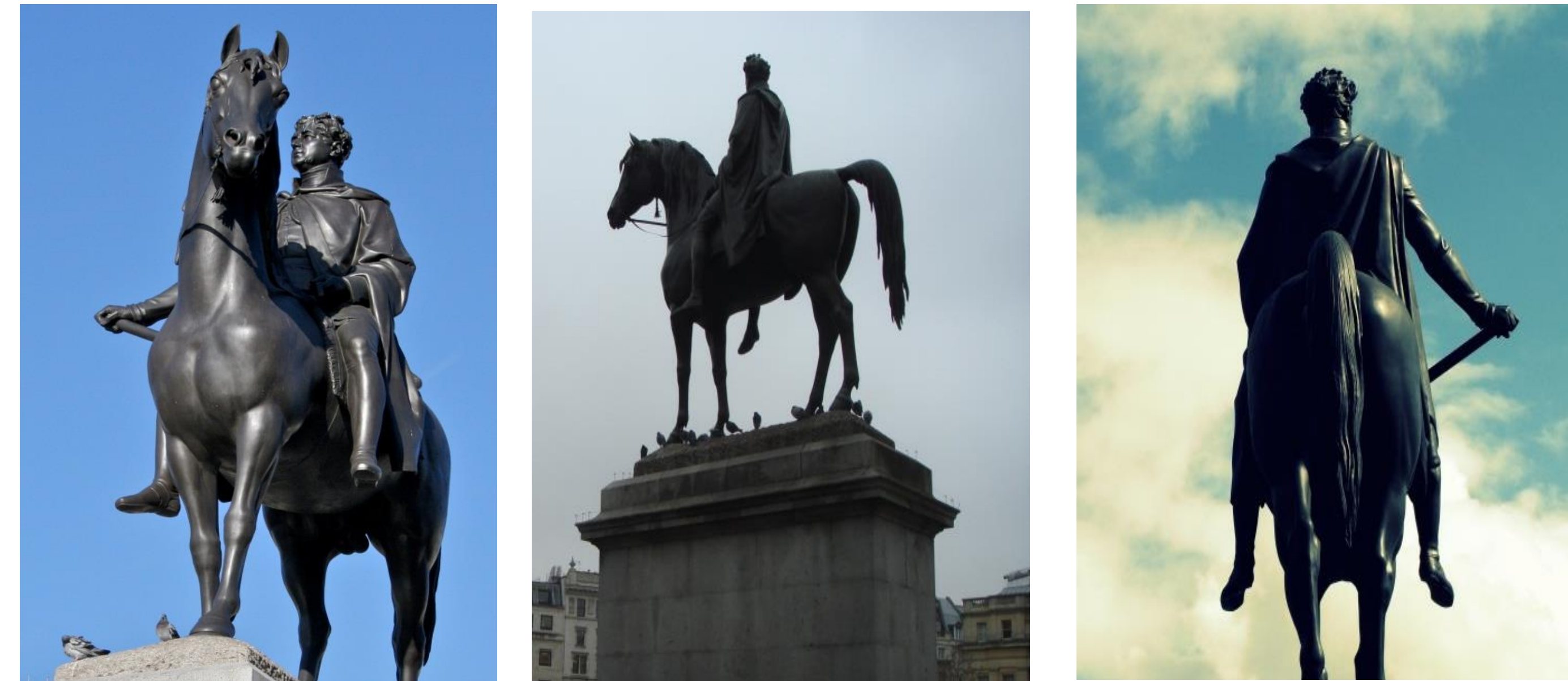
Possible to infer *camera pose* precisely:
deducing observer *location* + *angle of view*

Building 3D Reconstruction with "Structure from Motion"



FOCUS Challenges

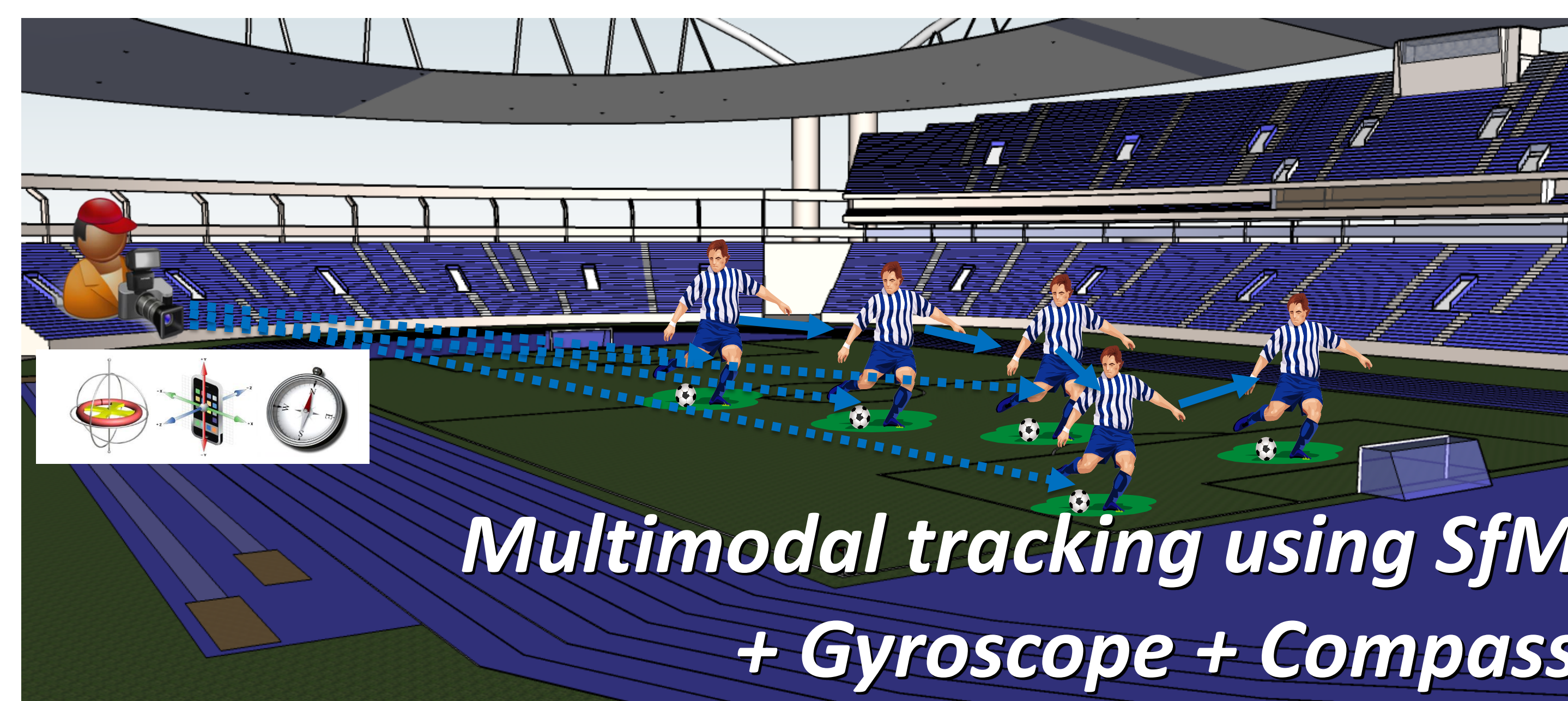
Visually different, yet similar



Visually similar, yet different

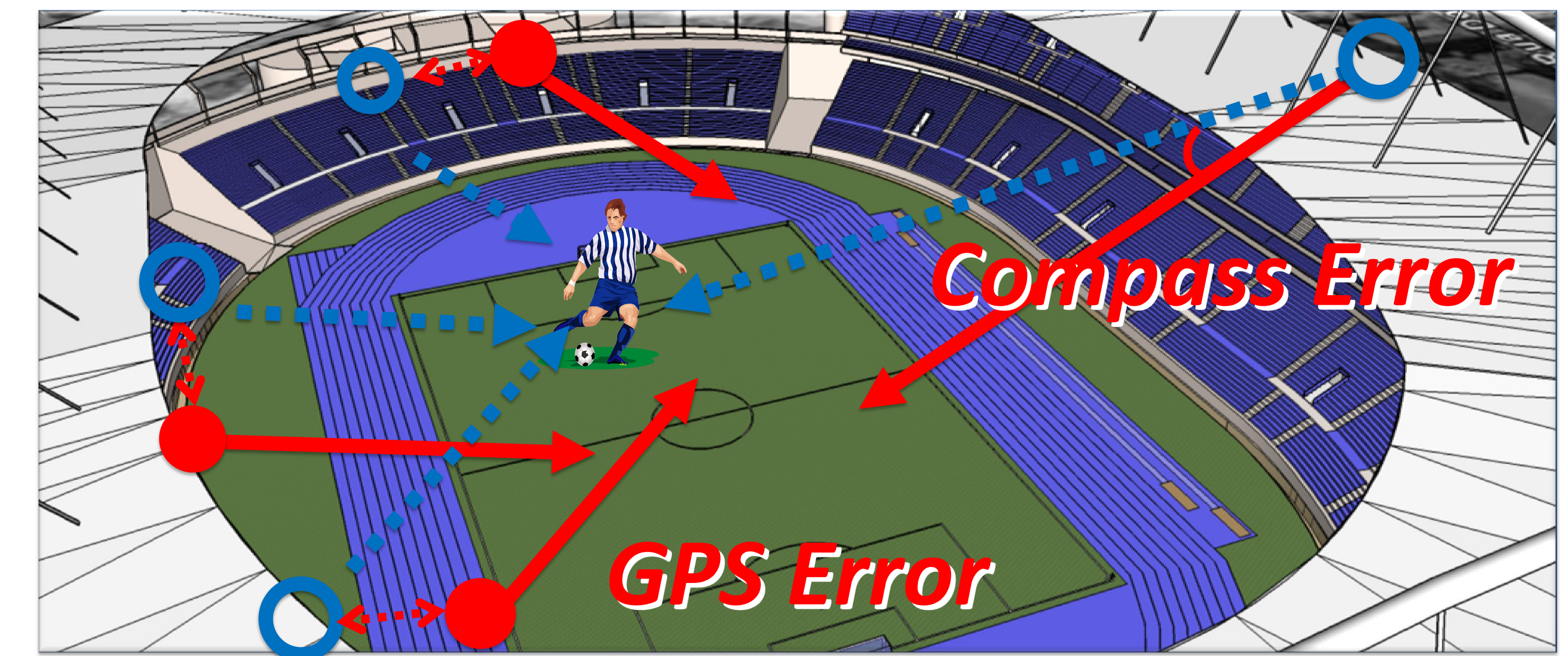


Combining *computer vision* and *sensing*
to match *contextual similarity* across time



From a known 3D geometry,
can reason about shared content

Triangulation does not apply



FOCUS informs clustering on video streams
with spatial and temporal correspondence

