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CORSMAL
Collaborative object recognition, shared manipulation and learning

Multi-view shape estimation of transparent containers

Alessio Xompero, Ricardo Sanchez-Matilla, Apostolos Modas, Pascal Frossard, Andrea Cavallaro

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Queen Mary University of London

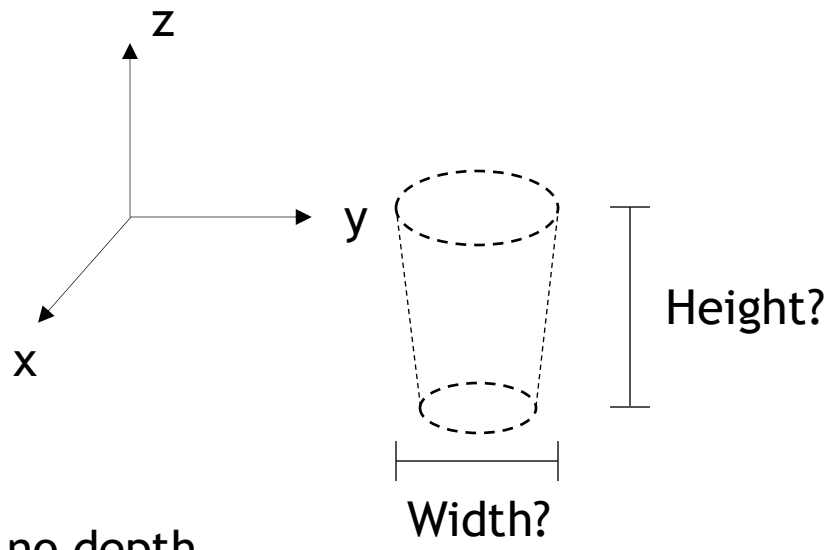
https://corsmal.eecs.qmul.ac.uk/LoDE.html

EPFL

The problem

View 1

View 2



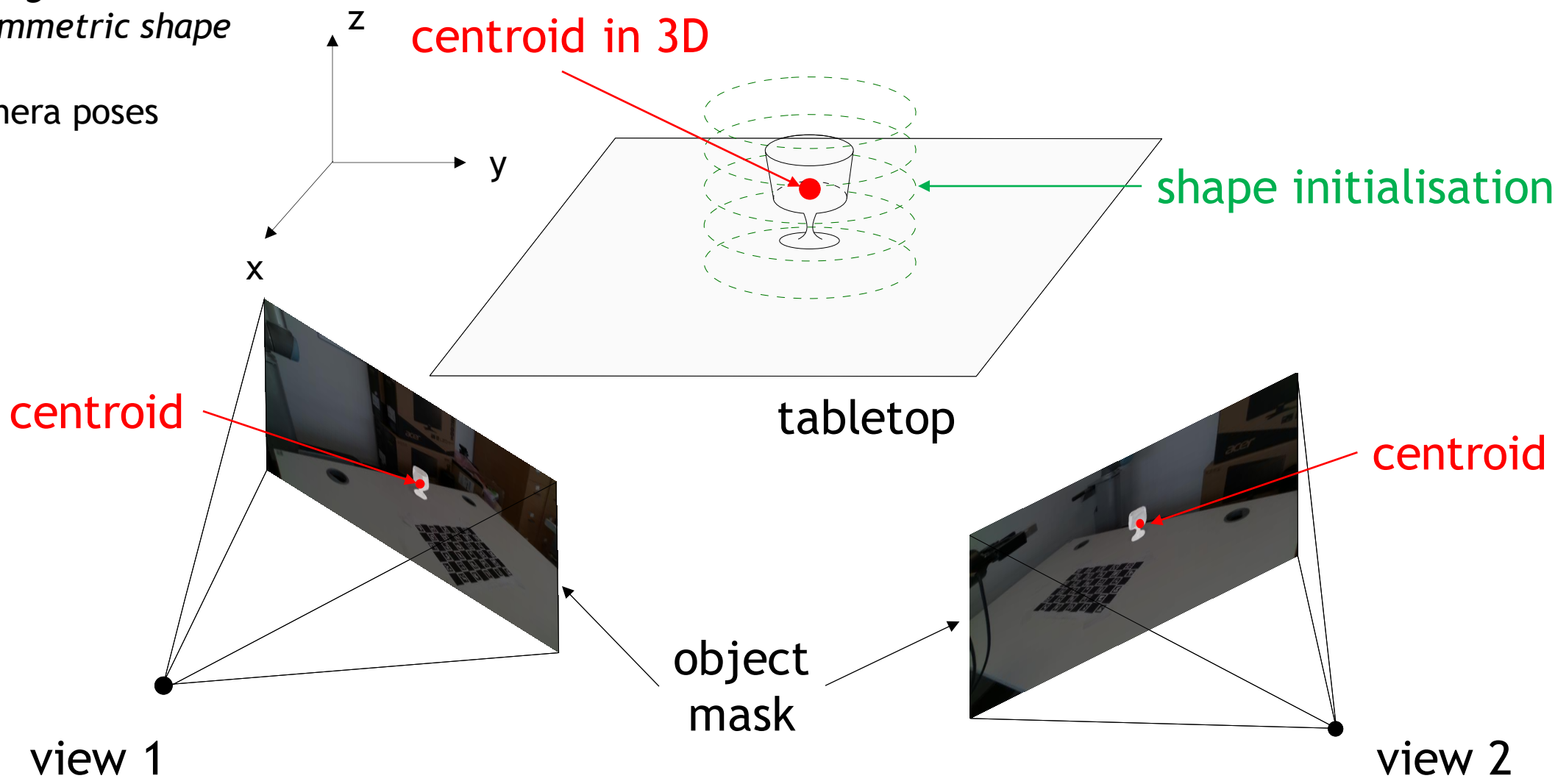
no depth
no prior 3D object models
no markers

How to estimate the dimensions in 3D of unknown objects?

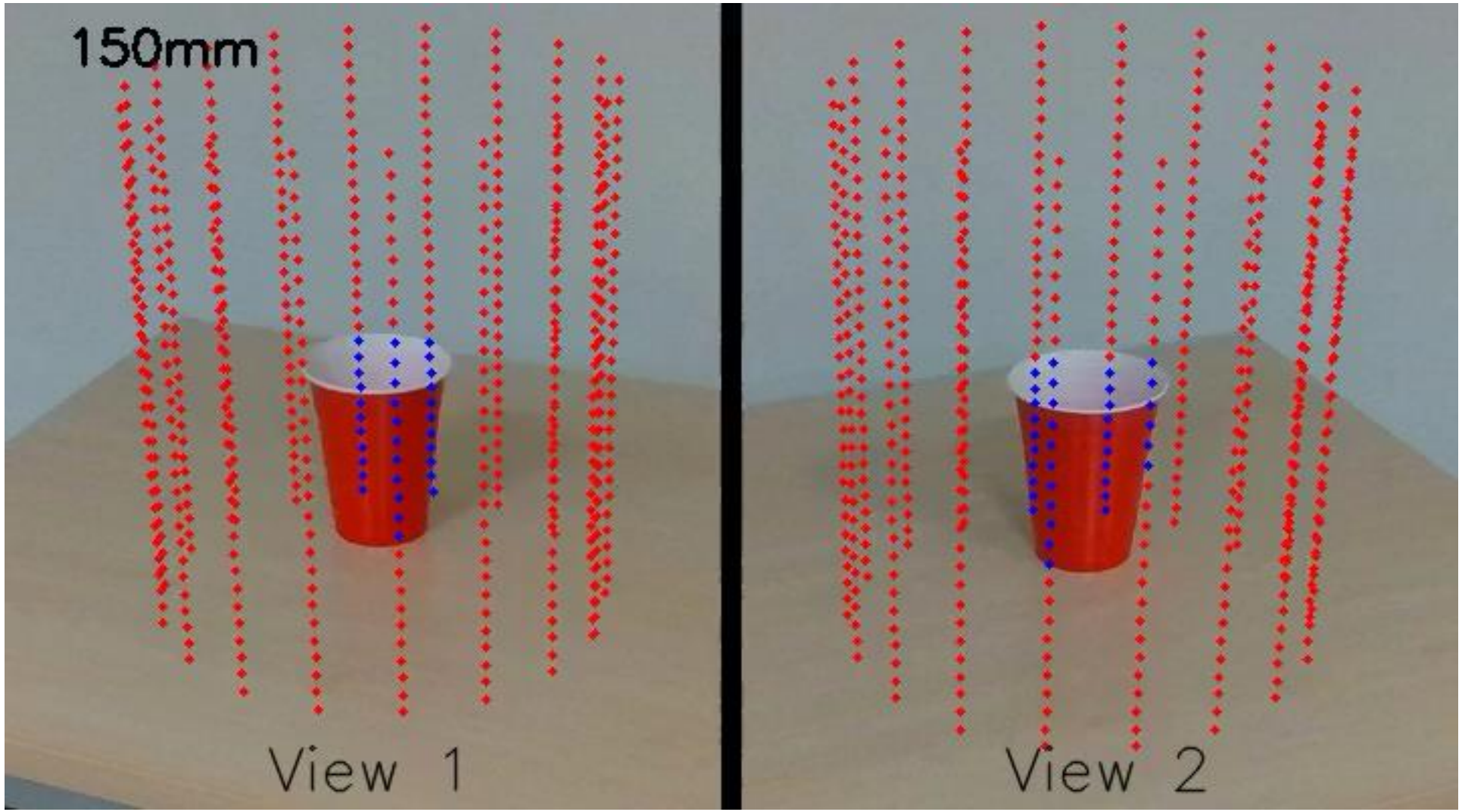
Localisation and object Dimension Estimator

Objects *upright* and with *circular symmetric shape*

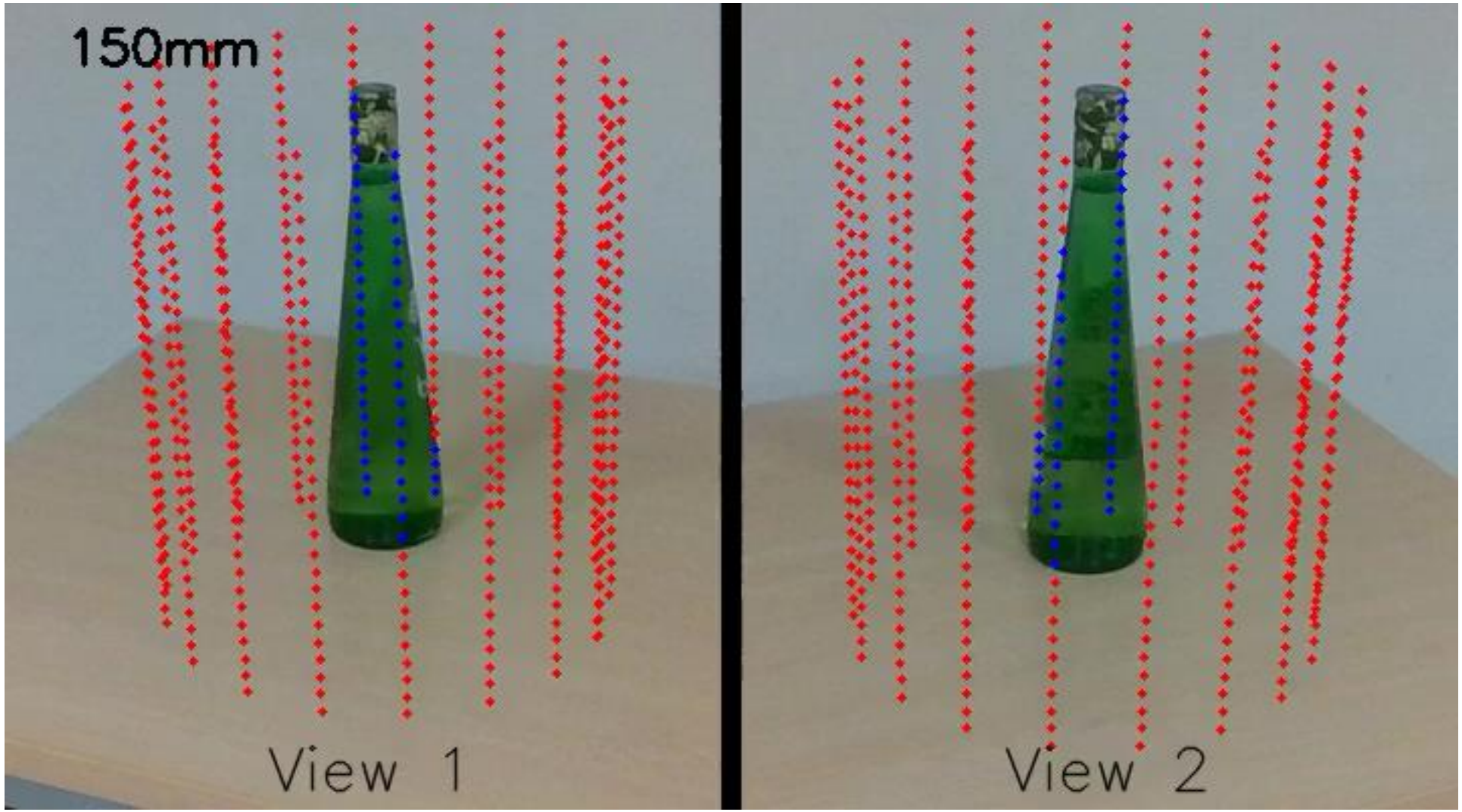
Known camera poses



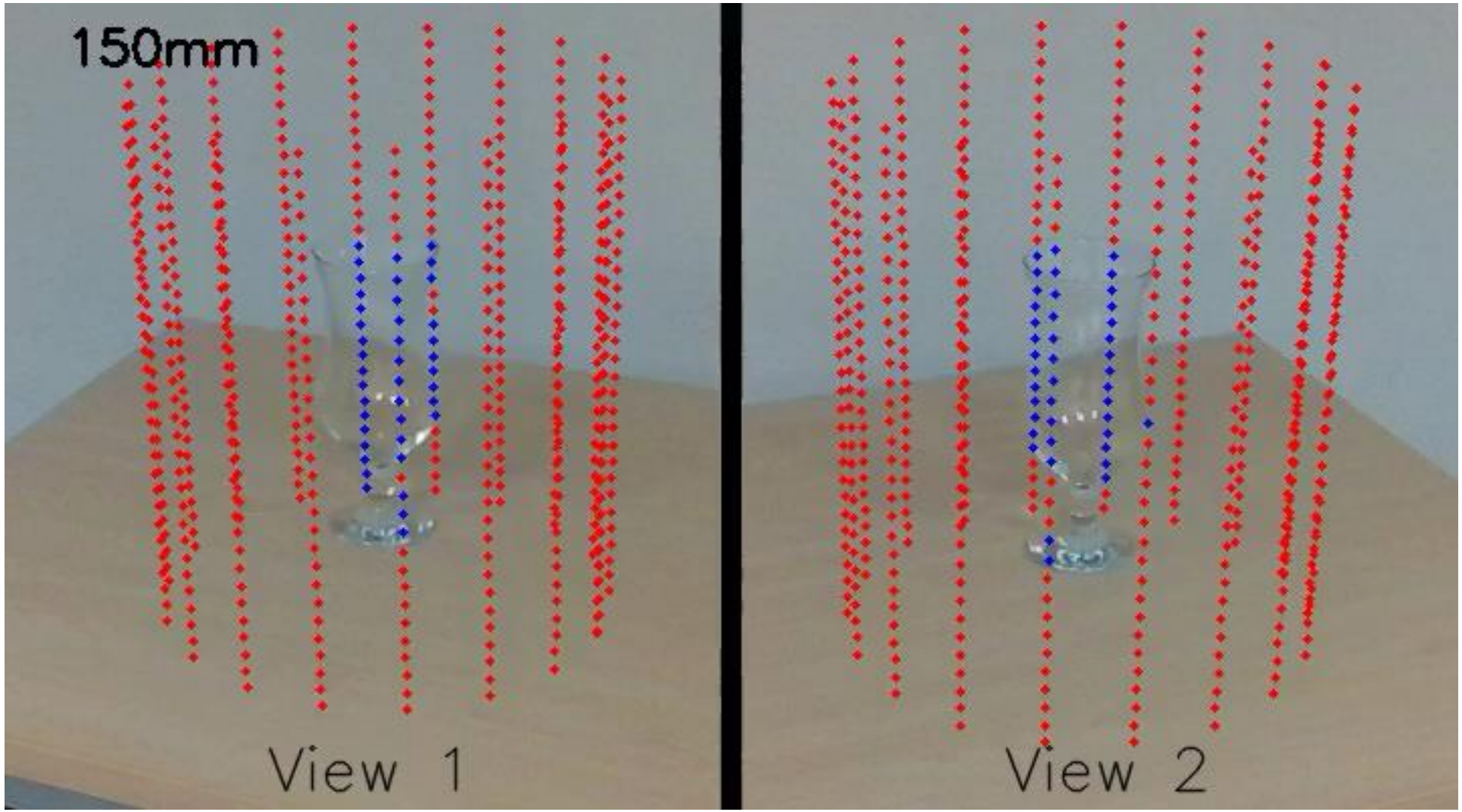
Iterative multi-view 3D-2D shape fitting



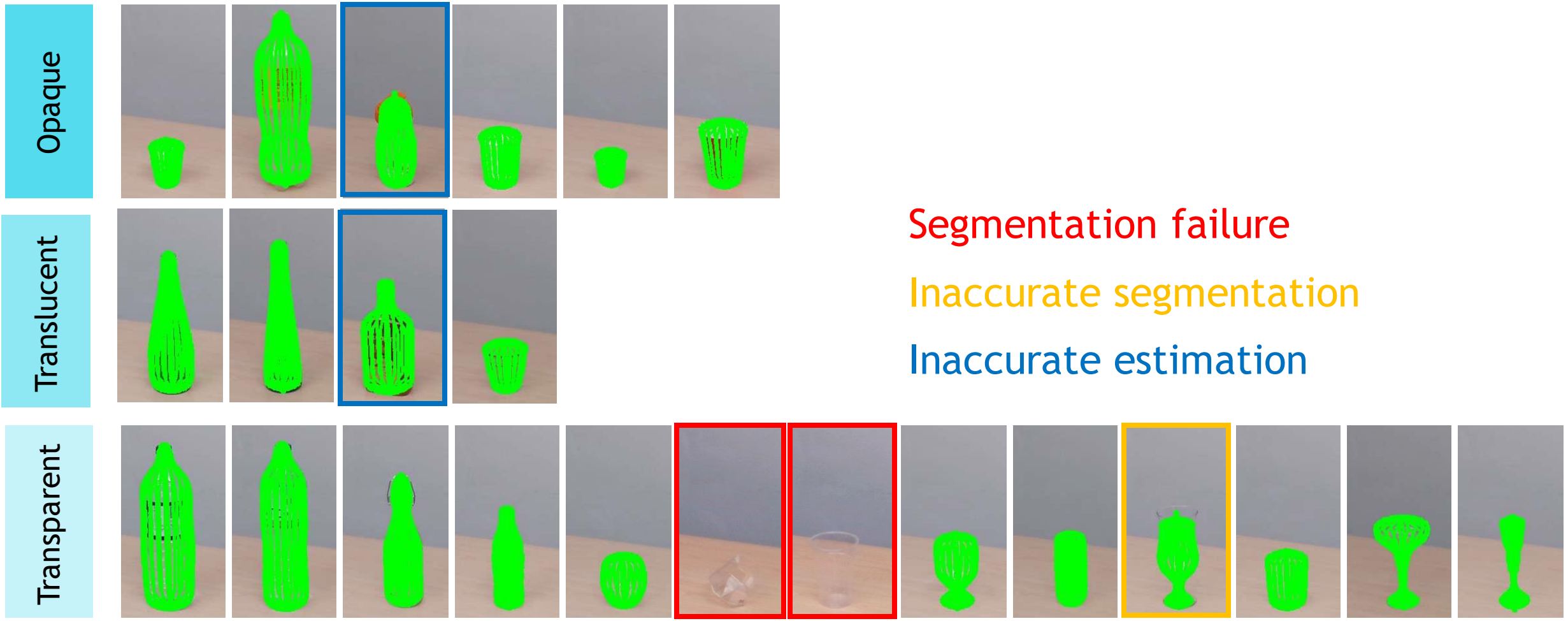
Iterative multi-view 3D-2D shape fitting



Iterative multi-view 3D-2D shape fitting



Shape fitting at convergence



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