

Welcome!



CORSMAL

Collaborative object recognition,
shared manipulation and learning

<http://corsmal.eecs.qmul.ac.uk/ICME2020challenge.html>

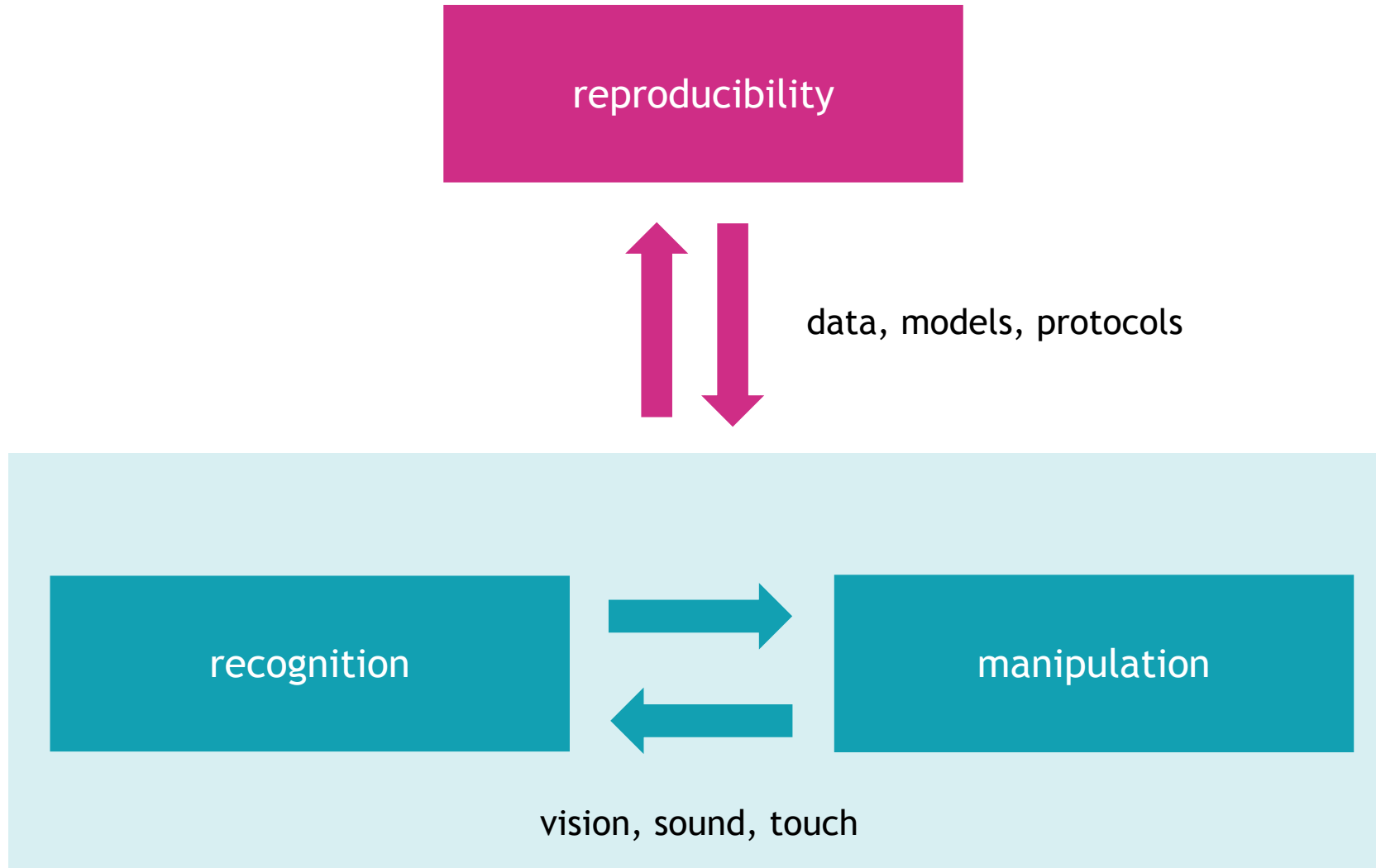
CORSMAL Challenge on Multi-modal Fusion and Learning for Robotics

<http://corsmal.eecs.qmul.ac.uk>

CORSMAL: the aim

- To create an open **dataset** and an **evaluation protocol** for the recognition and manipulation of previously unseen object instances
- To explore the fusion of **multiple sensing modalities** (touch + sound + vision) to accurately and robustly estimate the **physical properties** of objects in noisy and ambiguous environments





CORSMAL Containers dataset

<http://corsmal.eecs.qmul.ac.uk/containers.html>



1,656 images (RGB, depth, IR)

2 views

23 containers

CORSMAL Containers Manipulation dataset

http://corsmal.eecs.qmul.ac.uk/containers_manip.html



1,140 videos (multi-view + multi-channel audio)

1 first-person view + 3 fixed cameras

15 containers x 3 fillings x 3 levels

CORSMAL containers manipulation dataset



@corsmal

<http://corsmal.eecs.qmul.ac.uk>

The CORSMAL benchmark



Benchmark for Human-to-Robot Handovers of Unseen Containers with Unknown Filling

R. Sanchez-Matilla, K. Chatzilygeroudis, A. Modas, N. Ferreira Duarte, A. Xompero, P. Frossard, A. Billard, A. Cavallaro
IEEE Robotics and Automation Letters (RA-L), vol.5, no. 2, Apr. 2020

<http://corsmal.eecs.qmul.ac.uk/benchmark.html>

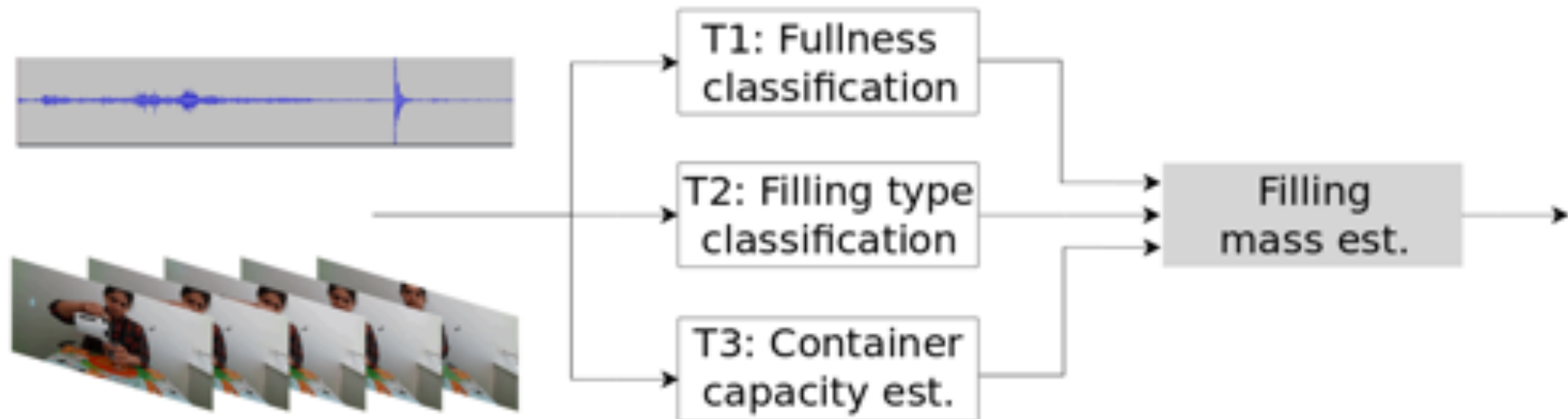
Participate in the CORSMAL Challenge!

2020 Intelligent Sensing Summer School, September, 1-4 (Virtual, London)

<http://cis.eecs.qmul.ac.uk/school2020.html>

25th International Conference on Pattern Recognition 2020, January, 10-15 (Milan)

<http://corsmal.eecs.qmul.ac.uk/ICPR2020challenge.html>





CORSMAL

Collaborative object recognition,
shared manipulation and learning

Today at 12pm BST

Multi-modal fusion and learning for robotics

- Learning Robotic Interaction Tasks with Stability Guarantees
- CORSMAL Dataset: Containers Manipulation
- CORSMAL Demo: Localisation and Shape Estimation of Containers
- CORSMAL Benchmark for Human-Robot Handover



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KTH



CORSMAL

Collaborative object recognition,
shared manipulation and learning

Today at 10:10am BST

Multi-modal fusion and learning for robotics

- Unknown Object Grasping: Techniques and Benchmarks
- Learning & Multi-Modal Sensing for Robotic Grasping & Manipulation
- Automatic 3D Annotations for Hand+Object Pose Estimation
- Touch, Interaction, & Presence In Telerobotics



R. Walker
Shadow Robot



V. Lepetit
*ENPC
ParisTech*



Y. Bekiroğlu
*UCL &
Chalmers*



G. Vezzani
*IIT &
DeepMind*