



International  
UON Collider  
Collaboration

# ***Physics and Detector Introduction***

**Donatella Lucchesi University of Padova and INFN**  
**for Physics and Detector**  
**October 7, 2021**

## Introduction

- ❑ Physics studies, detector simulation, software and framework development are proceeding since several years.
- ❑ Detailed detector simulation, including the beam-induced background, was mandatory to demonstrate that physics is possible at muon collider.
- ❑ In less than two years, a small group of people has been able to setup a working package for complete and detailed detector and beam-induced background simulation.

Today we are proposing to better organize these activities with three working groups:

**WG 1:** Physics Potential

**WG 2:** Detector performance (with several focus areas)

**WG 3:** Detector R&D and Software & Computing development



## Introduction cont'd

The agenda now will proceed with the presentation of the current status of activities in the three WGs in the order:

**WG 3:** Detector R&D and Software & Computing development

**WG 2:** Detector performance (with several focus areas)

**WG 1:** Physics Potential

At the end we will present and discuss a proposal for the WG structure.