

Dixièmes Journées Franco-Chiliennes d'Optimisation
INSA Rouen Normandie, Rouen, France
8-11 July 2025

**RECENT DEVELOPMENTS IN OPTIMAL CONTROL OF SWEEPING
PROCESSES**

LAILA ALSHARIEF AND ABDERRAHIM JOURANI

Our aim in this talk is to present recent development on optimal control of sweeping processes (OCSW). After having explored different approaches, we will show the fundamental rule that plays the coderivative of the metric projection mapping in obtaining a maximum principle of the implicit and explicit OCSW.

INSTITUT DE MATHÉMATIQUES DE BOURGOGNE, UNIVERSITÉ BOURGOGNE EUROPE, UMR 5584 CNRS,
DIJON, FRANCE, EMAIL: abderrahim.jourani@ube.fr