

## FMfI2023 Program

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| Affiliation | Institute of Mathematics for Industry / International Institute for Carbon-Neutral Energy Research, Kyushu University   |
| Title       | <b>Nonlinear dynamics of hydrodynamically unstable premixed flames with physicochemical interactions</b>  |
| Abstract    | Dynamics of hydrodynamically unstable premixed flames are studied. The nonlinear hydrodynamic model and the Sivashinsky equation are considered to extract intrinsic nature of nonlinear flame morphology through numerics and the bifurcation theory. This talk is based on the joint works with Prof. Moshe Matalon (UIUC). |