COST Action CA18232 – *Mathematical models for interacting dynamics on networks*

WG2 Meeting

Sorbonne Université Campus, Saint-Cyr-l'École, France

April 20-22, 2022

Scientific Program & Schedule

Wednesday, April 20

2:00pm-3:00pm Welcome (and coffee break)
3:00pm-3:10pm WG2 Meeting opening
3:10pm-3:50pm Niclas Bernhoff (Karlstad Univ., Sweden)
Compactness results for the linearized Boltzmann collision operators for multicomponent and polyatomic gases (approach 1)
3:50pm-4:30pm Quốc Bảo Tăng (Univ. Graz, Austria)
Global existence and equilibration of chemical systems with nonlinear diffusion
4:30pm-5:30pm Discussion time

Thursday, April 21

9:40am-10:20am Jiří Mikyška (Czech Technical Univ. in Prague, Czech Republic)
An alternative model of multicomponent diffusion based on a combination of the Maxwell-Stefan theory and continuum mechanics
10:20am-11:00am Thomas Borsoni (Sorbonne Univ., France)
A general framework for the kinetic modeling of polyatomic gases
11:00am-11:30am Coffee break
11:30am-3:00pm Lunch & Discussion time
3:10pm-3:40pm Coffee break
3:40pm-4:20pm Marwa Shahine (Univ. Bordeaux, France)
Compactness property of the linearized Boltzmann operator for mixtures of polyatomic gases (approach 2)
4:20pm-5:00pm Marjeta Kramar Fijavž (Univ. Ljubljana, Slovenia)
The semigroup approach to the linear Boltzmann equation on metric graphs
5:00pm-6:00pm Discussion time

Friday, April 22

9:40am-10:20am Romina Travaglini (Univ. Parma, Italy)
Reaction-diffusion systems derived from kinetic models for reacting mixtures of monatomic and polyatomic gases
10:20am-11:00am Julien Mathiaud (CEA, France)
Moment methods for rarefied gas dynamics: from theory towards numerics
11:00am-11:30am Coffee break
11:30am-1:30pm Lunch & Discussion time
1:30pm WG2 Meeting closure

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Meeting organization: Laurent Boudin, Bérénice Grec, Milana Pavić-Čolić