



## Karlstad Applied Analysis Seminar (2022)


Marwa Shahine, University of Bordeaux, France.

May 11, Wednesday, 10:30-11.30

### **Compactness Property of the Linearized Boltzmann Operator for a Mixture of Polyatomic Gases**

#### **Abstract**

In this talk we present a kinetic description for gas mixtures of polyatomic



N. Bernho , Linearized Boltzmann Collision Operator: II. Polyatomic Molecules Modeled by a Continuous Internal Energy Variable, 2022.

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[4] L. Boudin, B. Grec, M. Pavic, and F. Salvarani, Diffusion asymptotics of a kinetic model for gaseous mixtures, *Kinet. Relat. Models* 6: 137-157, 2013.

[5] J.-F. Bourgat, L. Desvillettes, P. Le Tallec, and B. Perthame. Microreversible collisions for polyatomic gases and Boltzmann's theorem. *European J. Mech. B Fluids*, 13(2):237-254, 1994.

[6] L. Desvillettes, R. Monaco, F. Salvarani, A kinetic model allowing to obtain the energy law of polytropic gases in the presence of chemical reactions, *European Journal of Mechanics- B/Fluids*, Volume 24( Issue 2): 219-236, 2005.

[7] H. Grad Asymptotic theory of the Boltzmann equation, II, *Rare ed Gas Dyn.*, Paris: 26-59, 1962.