

Workshop on  
 “Analytical and Computational Problems for Mixtures and Plasma  
 Dynamics”

June 17-21 (except for 20), 2019

organized by  
 Milana Pavic-Colic, Irene M. Gamba, Liu Liu

• Monday, June 17

10:30 - 11:00	<b>Self registration and coffee break</b>
11:00 - 11:50	<b>Lingbing He</b> <i>On semi-classical limit of spatially homogeneous quantum Boltzmann equation</i>
11:50 - 12:40	<b>Chiara Saffirio</b> <i>From the many-body quantum dynamics to the Vlasov equation</i>
12:45 - 14:15	<i>Lunch break</i>
14:20 - 15:10	<b>B�er�enice Grec</b> <i>A numerical scheme for a kinetic model for mixtures in the diffusive limit using the moment method</i>
15:10 - 16:00	<b>Laurent Boudin</b> <i>Stability of the spectral gap for the Boltzmann multi-species operator linearized around non-equilibrium Maxwell distributions</i>
16:00 - 16:30	<i>Coffee and cake</i>
16:30 - 18:00	<b>Lipschitz Lecture IV by Sergio Simonella</b> <i>Kinetic limit for particles interacting through a short range potential: recent advances</i>
<i>afterwards</i>	<i>Reception</i>

• Tuesday, June 18

09:40 - 10:30	<b>Irene M. Gamba</b> <i>Multi-component gas system models: The billiard mixing for mixtures</i>
10:30 - 11:00	<i>Group photo and coffee break</i>
11:00 - 11:50	<b>Jeffrey Haack</b> <i>Consistent BGK model for high energy density plasma mixtures</i>

11:50 - 12:40	<b>Christian Klingenberg</b> <i>On a multi-species kinetic model of plasma, theory and numerics</i>
12:45 - 14:15	<i>Lunch break</i>
14:20 - 15:10	<b>Alexander Bobylev</b> <i>On BGK-models for gas mixtures</i>
15:10 - 16:00	<b>Liu Liu</b> <i>Micro-macro decomposition based asymptotic-preserving numerical schemes for collisional nonlinear kinetic equation</i>
16:00 - 16:30	<i>Coffee and cake</i>
16:30 - 17:00	<b>Erica Belen De La Canal</b> <i><math>L^p</math> estimates for the solution of the system of Boltzmann equations for monatomic gas mixtures</i>

• **Wednesday, June 19**

10:00 - 10:30	<b>Marina Ferreira</b> <i>Multicomponent coagulation equation for aerosol dynamics</i>
10:30 - 11:00	<i>Coffee break</i>
11:00 - 11:50	<b>Alessia Nota</b> <i>Homoenergetic Solutions for the Boltzmann Equation</i>
11:50 - 12:40	<b>Shi Jin</b> <i>Semiclassical computational methods for quantum dynamics with band-crossing and uncertainty</i>
12:45 - 14:25	<i>Lunch break</i>
14:30 - 15:00	<b>Marlies Pirner</b> <i>BGK models for gas mixtures: Modelling and theory</i>
15:00 - 15:30	<b>Hélène Hivert</b> <i>An asymptotic preserving scheme for a kinetic equation describing propagation phenomena</i>
15:30 - 16:00	<b>Helge Dietert</b> <i>On Cucker-Smale dynamical systems with degenerate communication</i>
16:00 - 16:30	<i>Coffee and cake</i>
16:30 - 17:00	<b>Maxime Herda</b> <i>Asymptotic behaviors of the Vlasov-Poisson-Fokker-Planck equation</i>

• **Thursday, June 20**

*Public Holiday* | *no talks at HIM*

• **Friday, June 21**

09:40 - 10:30	<b>Francesco Salvarani</b> <i>On the Maxwell-Stefan diffusion equations for multicomponent gaseous mixtures</i>
10:30 - 11:00	<i>Coffee break</i>
11:00 - 11:30	<b>Gernot Heißel</b> <i>The dynamical systems approach to spatially homogenous Einstein-Vlasov cosmology</i>
11:30 - 12:00	<b>Jang Jin Woo</b> <i>On the Landau equation with the specular reflection boundary condition</i>
12:00 - 12:30	<b>Anna Szczekutowicz</b> <i>Velocity Dependent Coulomb Logarithm In The Landau Limit Of The Boltzmann Equation</i>
12:35 - 14:25	<i>Lunch break</i>
14:30 - 15:00	<b>Raphael Winter</b> <i>Convergence to the Landau equation from the truncated BBGKY hierarchy in the weak-coupling limit</i>
15:00 - 15:30	<b>Esther S. Daus</b> <i>Multi-species cross-diffusion population models: existence of solutions and derivation from underlying particle models</i>
15:30 - 16:00	<b>Sona Akopian</b> <i>On <math>L^p</math> solutions of a special class of homogeneous Boltzmann equations in the Coulomb case</i>
16:00 - 16:30	<i>Coffee and cake</i>
16:30 - 17:20	<b>François Golse</b> <i>Partial Regularity in Time for the Landau Equation (with Coulomb Interaction)</i>

*All talks take place at HIM lecture hall, Poppelsdorfer Allee 45, Bonn.*