

The 2nd International Workshop on Mathematical Analysis of Chemotaxis

Tokyo University of Science, Tokyo, Japan

Room 831 in Building 8
February 20–25, 2017

Schedule

February 20 (Mon) Chair person: Masaaki Mizukami

10:30–10:45 Opening

10:45–11:30 **Etsushi Nakaguchi** (Tokyo Medical and Dental University)
Global solutions to a parabolic-parabolic system for chemotaxis with logistic-type growth and superlinear production

Lunch

13:00–13:45 **Tomasz Cieřlak** (Polish Academy of Sciences)
1d quasilinear chemotaxis

Break

13:55–14:30 **Noriaki Yoshino** (Tokyo University of Science)
On the global solvability of a chemotaxis growth system

14:30–15:05 **Tobias Black** (Paderborn University)
Eventual smoothness of generalized solutions to a chemotaxis-Stokes system

February 21 (Tue) Chair person: Marcel Freitag

10:00–10:45 **Xinru Cao** (Paderborn University)
An interpolation inequality for equi-integrable functions and its application in Keller-Segel model

10:45–11:20 **Masanari Miura** (Kyushu University)
Well-posedness for the Keller-Segel system coupled with the Navier-Stokes fluid in the critical Besov spaces

11:20– Lunch & Excursion

February 22 (Wed) Chair person: Tobias Black

10:00–10:45 **Christian Stinner** (Technical University Darmstadt)
Global existence for some chemotaxis-haptotaxis models

10:45–11:30 **Kentarou Fujie** (Polish Academy of Sciences)
Sufficient condition on sensitivity functions for global existence in a fully parabolic Keller–Segel system

Lunch

13:00–13:45 **Johannes Lankeit** (Paderborn University)
A generalized solution concept for the Keller-Segel system with logarithmic sensitivity: Global solvability for large nonradial data

13:45–14:20 **Masaaki Mizukami** (Tokyo University of Science)
Remarks on boundedness in Keller–Segel systems with signal-dependent sensitivity

Break

14:30–17:30 Student discussion (Leader: Mizukami, Freitag) and Free discussion

February 23 (Thu) Chair person: Masanari Miura

10:00–10:45 **Takasi Senba** (Fukuoka University)
Blowup of solutions to a system related to chemotaxis in high dimensional domains

10:45–11:30 **Yoshifumi Mimura** (University of Tokyo)
Critical mass of Keller-Segel system from a variational point of view

Lunch

13:00–13:45 **Elio Espejo** (Kyushu University)
An entropy method to prove simultaneous blow-up in multi-species Keller-Segel models

13:45–14:20 **Marcel Freitag** (Paderborn University)
Blow-up profiles and refined extensibility criteria in quasilinear Keller-Segel systems

Break

14:30–17:30 Student discussion (Leader: Yoshino, Black) and Free discussion

February 24 (Fri)

Chair person: Sachiko Ishida

10:00–11:30 **Yoshie Sugiyama** (Kyushu University)
On Hölder continuity of solutions to fast diffusion equations with external forces and its applications

Lunch

Chair person: Noriaki Yoshino

13:00–13:45 **Yulan Wang** (Xihua University)
Global solutions in a three-dimensional chemotaxis-fluid system involving a tensor-valued sensitivity with saturation

13:45–14:20 **Shunsuke Kurima** (Tokyo University of Science)
Global existence and boundedness in a two-species chemotaxis-Navier–Stokes system with competitive kinetics

Break

14:30–17:30 Student discussion (Leader: Miura, Kurima) and Free discussion

February 25 (Sat)

10:00–12:00 Student discussion (Leader: Mizukami, Black) and Free discussion

	Feb. 20 (Mon)	Feb. 21 (Tue)	Feb. 22 (Wed)	Feb. 23 (Thu)	Feb. 24 (Fri)	Feb. 25 (Sat)
10:00-10:45	Opening 10:30-10:40	Gao	Stinner	Senba	Sugiyama 10:00-11:30	Student Exchange (Mizukami, Black)
10:45-11:30	Nakaguchi	Miura 10:45-11:20	Fujie	Mimura		
Lunch						
13:00-13:45	Cieslak	Excursion	Lankeit	Espejo	Wang	
13:55-14:30	Yoshino		Mizukami 13:45-14:20	Freitag 13:45-14:20	Kurima 13:45-14:20	
14:30-15:05	Black		Student Exchange (Mizukami, Freitag)	Student Exchange (Yoshino, Black)	Student Exchange (Miura, Kurima)	
15:00- -17:30						

Student Exchange:
Students discuss elementary facts and background etc. (The person in the bracket is the leader.)

Invited talk (40 min + Q and A 5min)

Talk (30 min + Q and A 5min)

