

3-1. Visiting (Associate) Professors (Visiting Professor Candidates) Invitation Program

No.	Name of Visiting (Associate) Professors	Name of Host Faculty Members
3-1-1	Amir SI LARBI Ecole Centrale de Lyon – ENISE, Université de Lyon (France) *as a presenter of the 15th IROAST Symposium	Gaochuang CAI IROAST
3-1-2	Bruno FAVERY INRAE-Université Côte d’Azur-CNRS-Institut Sophia Agrobiotech (France) *as a presenter of the 14th IROAST Symposium	Shinichiro SAWA FAST

Visiting (Associate) Professors (Visiting Professor Candidates) who gave lectures at IROAST symposiums and seminars

* Their activity reports are included in the report of “4-2. IROAST Seminars”.

No.	Name of Visiting (Associate) Professors Seminar/Symposium	Name of Host Faculty Members
3-1-3	Patrice DELMAS The University of Auckland (Australia) The 84th IROAST Seminar	Toshifumi MUKUNOKI FAST
3-1-4	Nicolae BARSAN University of Tübingen (Germany) The 85th IROAST Seminar	Tetsuya KIDA FAST
3-1-5	Suttichai ASSABUMRUNGRAT Chulalongkorn University (Thailand) The 86th IROAST Seminar	Tetsuya KIDA FAST
3-1-6	Pavel LEJČEK Institute of Physics, Academy of Sciences of Czech Republic (Czech Republic) The 87th IROAST Seminar	Sadahiro TSUREKAWA FAST
3-1-7	Josep Lluís BARONA-VILAR University of Valencia (Spain) The 88th & the 89th IROAST Seminar	Makoto TAKAFUJI FAST

3-1-8	Konstantinos Daniel TSAVDARIDIS City, University of London (UK) <hr/> The 90th IROAST Seminar / The 15th IROAST Symposium	Gaochuang CAI IROAST
3-1-9	Shie-Ming PENG National Taiwan University (Taiwan) <hr/> The 91th IROAST Seminar	Shinya HAYAMI FAST
3-1-10	Olivier BOUTIN Aix-Marseille University (France) <hr/> The 92nd IROAST Seminar	Mitsuru SASAKI IINa
3-1-11	Dario ZAPPA The University of Brescia (Italy) <hr/> The 93rd IROAST Seminar	Tetsuya KIDA FAST

FAST : Faculty of Advanced Science and Technology

IINa : Institute of Industrial Nanomaterials

Report on IROAST Visiting Professor Invitation

No.1-1	Name	Amir SI LARBI	Title	Professor
	Affiliation	Ecole Centrale de Lyon – ENISE, Université de Lyon, France		
Host Professor	Name	Gaochuang CAI	Title	Associate professor
	Affiliation	IROAST		
Duration of Visit	From January 27, 2023 to February 4, 2023			

-Activities report with visiting professor-

1. Activities during his/her stay (Please give specific details, such as lecturing at symposium, giving lectures and research guidance to students, discussions on joint research, etc.)

-Host a symposium at Kumamoto University with Dr. Cai.

We host an international symposium during his stay at Kumamoto. The details are available in the IROAST website.

-Discussion on collaboration, including publication, and funding application.

We have discussed the details of the main collaboration topics, collaboration methods, etc.

-Mini-seminar with Cai research group members, Ph.D. students

As one of the co-supervisors of Cai's research group Ph.D. members, Professor Si Larbi discussed with the students and offer his suggestions.

-Visiting the structural lab at Kumamoto University for discussing the future research plan.

Professor Si Larbi visited the research lab. with another visitor with Dr. Cai for discussing the possibility of new research topics in the future.

2. Research achievements during his/her stay at Kumamoto University.

-Publication

Q. Su, G. Cai*, M. Hani, A. Si Larbi, K. D. Tsavdaridis. (2023) Damage control of the masonry infills in RC frames under cyclic loads: A full-scale test study and numerical analyses, Bulletin of Earthquake Engineering, 21, 1017–1045. (IF*4.556, Q1)

H.T Zhu, Y. He, G. Cai*, ... A. Si Larbi. (2023). Bond performance of carbon fiber reinforced polymer rebars in ultra-high-performance concrete, accepted in Journal of Construction building materials. (IF: 7.693, Q1, Top Journal)

G. Cai*, T. Fujinaga, A. Si Larbi, Y. Wen, P. Malla (2023). Cyclic behavior of RCFT columns with large D/t ratio steel tubes-Effect of reinforcement arrangement. Under Revision, Bulletin of Earthquake Engineering (IF*4.556, Q1)

F. Zhao, F. Xiong, G. Cai*, Q. Ge, A. Si Larbi (2023). Seismic Behavior and Simplified Hysteretic Model of Precast Concrete Wall Panels with Bolted Connections Under Cyclic Loading. Under review, Engineering Structures (IF: 5.582, Q1, Top Journal)

-Research exchange

A Ph.D. student will visit ENISE next year

Two Ph.D. students will come to Kumamoto University next year.

3. Prospect for further research collaboration.

-Funding application

Prepare a proposal for the following programs,

JSPS- Bilateral Programs

JST-SAKURA science exchange program

JST-SATREPS project

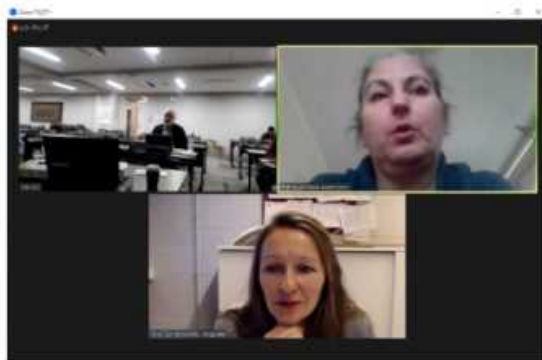
-Publication

More than 4 papers are under preparation with the professor

-Visiting exchange

Dr. Cai will visit the professor's university for having lectures, test collaboration, and seminar

Several photos of Professor Si Larbi's activities at Kumamoto University





Lab visit

Report on IROAST Visiting Professor Invitation

No.1-2	Name	Bruno FAVERY	Title	Senior scientist (DR2)
	Affiliation	INRAE-Université Côte d'Azur-CNRS-Institut Sophia Agrobiotech, France		
Host Professor	Name	Shinichiro SAWA	Title	Professor
	Affiliation	Faculty of Advanced Science and Technology (FAST)		
Duration of Visit	From December 11, 2022- December 17, 2022			

-Activities report with visiting professor-

1. Research achievements during his stay in Kumamoto University.

We discussed with Dr. Bruno FAVERY and his team members about researches on the molecular and physiological mechanism of plant-parasitic nematode infection during his stay in Kumamoto. We agreed to continue collaboration about plant development and biotic interaction.

We visited several hot-spring areas, Unzen, Yamaga, and Oguni, with his team members and investigated the effects of volcanic ash and sulfur gas on vegetation and nematode infection (picture). Results of the survey generated new idea of the relation between soil conditions and nematode infection, leading to new collaborative research.



2. Prospect for further research collaboration

Root-knot nematodes form feeding sites, called giant cells, in host roots by injecting effector proteins into vascular cells. However, molecular mechanisms of the formation of giant cells, are still unknown. We are going to collaborate with Dr. Bruno FAVERY's team to investigate the molecular mechanism of giant cell formation. We will elucidate plant response to nematode infection at the molecular level during giant cell formation, whereas Dr. Bruno FAVERY's team will reveal the function of effector proteins in nematode infection.