



THE UNIVERSITY
OF ARIZONA



CNRS-UArizona International Research Center
France-Arizona Institute for Global Grand Challenges

2022 Conference
University of Arizona, Tucson
February 28 – March 2

- 7:45 - 8:30** Registration & Light Breakfast [ENR2 S107 & Online](#)
- 8:30 - 8:50** Introduction: The CNRS-UA Arizona International Research Center [ENR2 S107 & Online](#)
France-Arizona Institute for Global Grand Challenges
Alain Schuhl & Joaquin Ruiz
- 8:50 – 10:05** Scientific presentations by UA and French PIs and graduate students [ENR2 S107 & Online](#)
Christelle Roy, CNRS International Cooperation Director

ASTRONOMY/PHYSICS

- 8:50** ***A Sharper View of the Late-Time Universe:
Joint Analyses of Cosmic Microwave Background and Galaxy Surveys***
UA PI: Elisabeth Krause, Assistant Professor, Physics and Astronomy
UA PhD student: Pranjal Rajendra Singh
CNRS PI: Karim Benabed, Institut d'Astrophysique de Paris
CNRS PhD student: Emma Aycoberry

DATA SCIENCE AND TECHNOLOGY

- 9:05** ***A Mechanics-based Microwave to Optical Quantum Link***
UA PI: Dalziel Wilson, Assistant Professor, Optical Sciences
UA PhD student : Aman Agrawal
CNRS PI: Samuel Deleglise, CNRS researcher, Kastler Brossel Laboratory, Sorbonne University
CNRS coPI: Thibaut Jaqmin, Research associate professor, Kastler Brossel Laboratory, Sorbonne University
CNRS PhD student: Himanshu PATANGE
- 9:20** ***IEA: Complexes of f-elements with a planar carbenium ligand for quantum technologies***
UA PI: Thomas Gianetti, Assistant Professor, Chemistry and Biochemistry
UA coPI: Jules Moutet, Postdoctoral research assistant, Chemistry and Biochemistry
CNRS PI: Gregory Nocton, Professor, Ecole Polytechnique
- 9:35** ***IEA: Digital Twin for Surgical Training and Custom Surgery***
UA PI: Jerzy Rosenblit, Distinguished Professor, Chair, Electrical and Computer Engineering
CNRS PI: Mamadou K. Traore, Professor, IMS Laboratory, Bordeaux University
- 9:50** ***IEA: Argumentation theory and natural language processing for participatory democracy***
UA PI: Mihai Surdeanu, Associate professor, Data science
CNRS PI: Srdjan Vesic, CNRS researcher, University of Artois
- 10:05 - 10:25** Break
- 10:25** Scientific presentations continued [ENR2 S107 & Online](#)
Christelle Roy, CNRS International Cooperation Director

HUMANITIES AND LINGUISTICS

- 10:25** ***IEA: Agency/Expectation/Intention/Opposition/Universality: Influences on actions in language***
UA PI: Heidi Harley, Professor, Acting Head, Linguistics
CNRS PI: Bridget Copley, University Paris 8

- 10:40** *Environmental Justice, Extraction and Cultural Resistance in Africa*
UA PI: Phyllis Taoua, Professor, French and Italian will present from laptop
UA coPI: Aurélie Mouzet, Assistant professor, French Studies
UA PhD student: Clara Randimbiarimanana
CNRS PI: Xavier Garnier, Professor, THALIM, Université Sorbonne Nouvelle
CNRS coPI: Elara Bertho, CNRS researcher, Laboratoire Les Afriques dans le Monde, Bordeaux University
CNRS PhD student: Margaux Vidotto

ENVIRONMENTAL SCIENCES

- 10:55** *IEA: Chance Constrained Games for Energy Management under Uncertainty*
UA PI: Jianqiang Cheng, Assistant professor, Systems and Industrial Engineering
CNRS PI: Abdel LISSER, Professor, Laboratoire Signaux & Systèmes, Central Supelec
- 11:10** *One person's trash is another person's treasure – optimizing metal-contaminated plant biomass towards the needs of Green Chemistry*
UA PI: Alicja Babst-Kostecka, Assistant professor, Environmental Science
UA PhD student: Tomasz Wlodarczyk
CNRS PI: Claude Grison, CNRS Research director, ChimEco Laboratory, Montpellier University
CNRS coPI: Yves-Marie Legrand, CNRS Research engineer, ChimEco Laboratory, Montpellier University
CNRS PhD student: Arthur Lasbleiz
- 11:25** *Rock-plant interactions driving early soil development and landscape evolution*
UA PI: Katerina Dontsova, Associate professor, Environmental Science
UA coPI: Katrina Dlugosch, Associate professor, Ecology and Evolutionary Biology
UA coPI: Scott Saleska, Professor, Ecology and Evolutionary Biology
UA PhD student: Taro Schmeeckle
CNRS PI: Samuel Abiven, Professor, Geosciences, ENS, Ecotron IleDeFrance
CNRS PhD student: Baptiste Hulin, Geosciences, ENS, Ecotron IleDeFrance
- 11:40** *Molecular and functional genomics of ancient viral epidemics*
UA PI: David Enard, Assistant professor, Ecology and Evolutionary Biology
UA PhD student : Gena Gray-Sandoval
CNRS PI: Lucie Etienne, CNRS Researcher, Research Center for Infectiology Research, ENS-Lyon
CNRS PhD student: Amandine Le Corf

12:00 Closing Remarks **ENR2 S107 & Online**
Joaquin Ruiz

12:30 - 1:20 Lunch **Optical Sciences 8th Floor Patio**

1:20 - 4:50 **Discovering Campus Tour**

1:20 Wyant College of Optical Sciences

2:00 *Group 1* Richard F. Caris Mirror Lab/ *Group 2* Tree Ring Lab

3:10 *Group 1* Tree Ring Lab/ *Group 2* Richard F. Caris Mirror Lab

4:20 BIO5 Institute

5:00 Discovering Campus Tour concludes

- 7:45 - 8:10** Registration & Light Breakfast [ENR2 S107 & Online](#)
- 8:10 - 8:20** Introduction [ENR2 S107 & Online](#)
Sylvette Tourmente, Head of CNRS Office in Washington DC
- 8:20 - 8:50** International strategy at CNRS and UArizona [ENR2 S107 & Online](#)
Christelle Roy, CNRS International Cooperation Director
Kim Patten, UArizona Assistant Vice President of Research Development
Mireille Guyader, Embassy of France's Counselor for Science and Technology
- 8:50 - 9:20** Interdisciplinarity at CNRS and UArizona [ENR2 S107 & Online](#)
Martina Knoop, CNRS Interdisciplinary Programs Director
Elliott Cheu, UArizona Associate Vice President, University Research Institutes
- 9:20 - 9:30** Introduction to working groups in breakout sessions: structure and goals [ENR2 S107](#)
Sylvette Tourmente, Head of CNRS Office in Washington DC
- 9:30 - 11:30** Breakout sessions [ENR2 Rooms S120A, S120B, N595, N604](#) *In-person only
Environmental sciences [ENR2 N595](#)
Social sciences, humanities, linguistics [ENR2 S120A](#)
Biological and health sciences [ENR2 S120B](#)
Mathematical, physical and information sciences and technology [ENR2 N604](#)
- 11:30 - 12:00** Break
- 12:00 - 12:45** Breakout Recap [ENR2 S107 & Online](#)
Overview of the conclusions of breakout sessions by each group's moderator
- 12:45 - 1:45** Lunch [ENR2 Rooftop](#)
- 5:30 – 7:30** Reception [Alfie Norville Gem & Mineral Museum](#)



Wednesday, March 2

- 9:00 – 10:00** University historic landmark building tour **Old Main**
- 10:00 – 10:20** President’s Summary **Old Main, Silver & Sage Room**
- 10:00** President Petit
- 10:10** President Robbins
- 10:20- 11:30** Toast/ Reception **Old Main Patio**
- 11:30** Bus pickup at Old Main for travel to Biosphere 2
- 12:30 - 1:20** Lunch at Biosphere 2 **Biosphere 2**
- 1:20 - 3:00** Biosphere 2 Tour **Biosphere 2**
- 3:15** Bus pickup at Biosphere 2 for travel to The Graduate Hotel
- 4:30** Bus drop-off at The Graduate Hotel

French Embassy and Consulates in the U.S.

Dr. Mireille GUYADER, Counselor for Science and Technology, Office for Science and Technology of the Embassy of France in the United States

Clara DEVOUASSOUX, Deputy Attachée for Science and Technology, French Consulate in Los Angeles

CNRS Governance

Dr. Antoine PETIT, CEO

Dr. Alain SCHUHL, Chief Scientific Officer

Dr. Christelle ROY, Director, International Cooperation

Mr. Jean THEVES, Deputy Director, International Cooperation

Ms. Eudora BERNIOLLES, International Program Manager, International Cooperation

Dr. Martina KNOOP, Director, Interdisciplinary Research

Dr. Sylvette TOURMENTE, Head of Washington D.C. Office

CNRS National Institutes

Dr. Jean-Stéphane DHERSIN, Scientific Deputy Director, National Institute of Mathematics

Dr. Bertrand GEORGEOT, Scientific Deputy Director, National Institute of Physics

Dr. Anne-Marie GUE, Chargée de Mission, National Institute of Engineering and Systems Science

Dr. Sylvie GUERDER, Scientific Deputy Director, National Institute of Biology

Dr. Emmanuel HENRY, Scientific Deputy Director, National Institute of Human and Social Sciences

Dr. Laurent NICOLAS, Scientific Deputy Director, National Institute of Engineering and Systems Science

Dr. Gilles PINAY, Scientific Deputy Director, National Institute of Ecology and the Environment

CNRS Scientists, IRL iGLOBES, OHMI Pima County, FA Institute Scientists and Staff

Dr. Soraya BOUDIA, Professor, Centre Alexandre Koyré, Université de Paris

Dr. Anne-Lise BOYER, Research Associate, OHMI Pima County, LABEX DRIIHM, CNRS

Dr. Emmanuel BROUILLET, CNRS Research Director, Laboratoire des Maladies Neurodégénératives, Université Paris-Saclay

Ms. Sky DOMINGUEZ, Assistant Director of Engagement and Development, FA Institute, UArizona

Dr. Régis FERRIERE, Director, IRL iGLOBES, UArizona and ENS-PSL, Deputy Director, FA Institute, UArizona

Dr. Larry FISHER, Deputy Director, OHMI Pima County, University of Arizona

Ms. Ruth GOSSET, Program Manager, IRL iGLOBES, CNRS

Dr. François-Michel LE TOURNEAU, Director, OHMI Pima County, CNRS

Dr. Jean-Bernard OUEDRAOGO, CNRS Research director, EHESS Paris

Dr. Alain PUMIR, CNRS Research Director, ENS Lyon

Dr. Sébastien ROUX, Deputy Director, IRL iGLOBES, CNRS



University of Arizona Governance

Dr. Robert C. ROBBINS, President
Dr. Betsy CANTWELL, Senior Vice President, Research Innovation Impact
Dr. Joaquin RUIZ, Vice President, Global Environmental Futures
Dr. Elliott CHEU, Associate Vice President, University Research Centers
Dr. Greg COLLINS, Associate Vice President, Resilience and International Development
Ms. Kim PATTEN, Assistant Vice President, Research Development
Ms. Emily KOTAY, Interim Assistant Director, Office of International Research

University of Arizona Deans

Public Health

Dr. Iman HAKIM, Dean
Dr. Kelly REYNOLDS, interim Associate Dean for Research

Social and Behavioral Sciences

Dr. John Paul JONES, Dean
Dr. Jane ZAVISCA, Associate Dean Research

Science

Dr. Carmela GARZIONE, Dean
Dr. Feryal OZEL, Associate Dean Research

Optical Sciences

Dr. Thomas KOCH, Dean

Engineering

Dr. David HAHN, Dean

Humanities

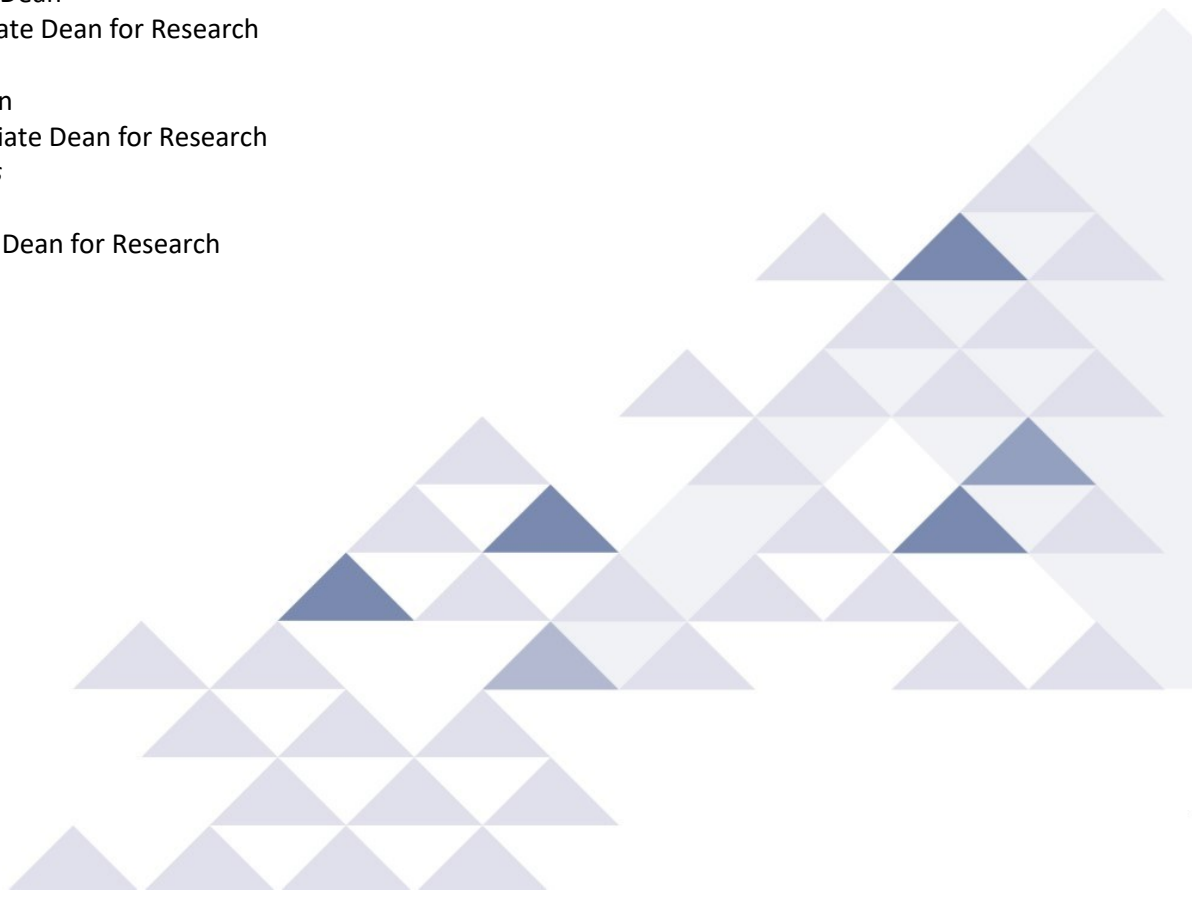
Dr. Alain-Philippe DURAND, Dean
Dr. Ken MCALLISTER, Associate Dean for Research

Medicine

Dr. Michael ABECASSIS, Dean
Dr. Jason WERTHEIM, Associate Dean for Research

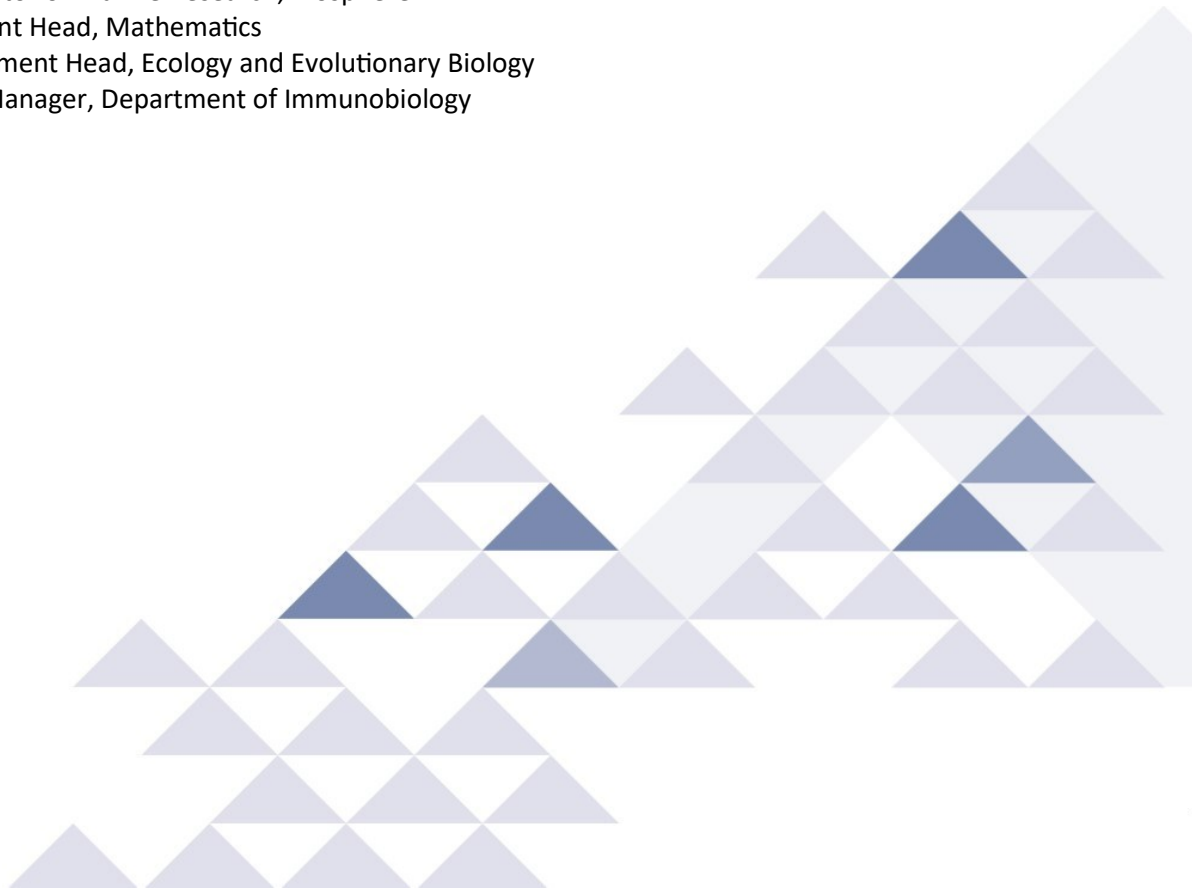
Agriculture and Life Sciences

Dr. Shane BURGESS, Dean
Dr. Parker ANTIN, Associate Dean for Research



University of Arizona Directors, Department Heads, Faculty, and Program Managers

Dr. Daniel APAI, Director, NASA ICAR AlienEarths
Dr. Greg BARRON-GAFFORD, Professor, School of Geography and Development
Dr. Jennifer BARTON, Director, BIO5 Institute
Dr. Kevin BONINE, Director, Education and Outreach, Biosphere 2, AIRES
Dr. Jim BUIZER, Director, Arizona Institutes for Resilience
Dr. Bryan CARTER, Director, Center for Digital Humanities
Dr. Michael CHERTKOV, Chair, Program of Applied Mathematics
Dr. Jon CHOROBBER, Department Head, Environmental Science
Dr. Pierre DEYMIER, Professor, Materials Science and Engineering
Dr. Andrea GERLAK, Director, Udall Center
Dr. Buell JANNUZI, Director, Steward Observatory
Dr. Janelle LAMOREAUX, Division Chair, Sociocultural and Linguistic Anthropology
Dr. Joceline LEGA, Associate Head for Postdoctoral Programs, Mathematics
Dr. Pierre LUCAS, Professor, Optical Sciences, Materials Science and Engineering, former director of CNRS LIA MATEO
Dr. Barney MACCABE, Director, Institute for the Future of Data and Computing
Dr. Theodore MATSON, Department of Immunobiology
Dr. Sharon MEGDAL, Director, Water Resources Research Center
Dr. Thomas MEIXNER, Department Head, Hydrology and Atmospheric Sciences
Dr. Nirav MERCHANT, Director, Data Science Institute
Dr. Laura MEREDITH, Assistant Professor, School of Natural Resources and the Environment
Dr. Cherry MURRAY, Deputy Director for Research, Biosphere 2
Dr. Janko NIKOLICH-ZUGICH, Co-Director, Arizona Center on Aging, Department Head, Immunobiology
Dr. Eduardo ROZO, Associate professor, Physics
Dr. Tim SWINDLE, Director, Space Science Institute
Dr. Diane THOMPSON, Director of Marine Research, Biosphere 2
Dr. Doug ULMER, Department Head, Mathematics
Dr. Mike WOROBEY, Department Head, Ecology and Evolutionary Biology
Dr. April YINGST, Program Manager, Department of Immunobiology



Laureates of 2021 Calls for Joint Projects

PhD Joint Project: *“Molecular and functional genomics of ancient viral epidemics”*

UArizona PI: David ENARD, Assistant professor, Ecology and Evolutionary Biology

UArizona PhD student : Gena GRAY-SANDOVAL

CNRS PI: Lucie ETIENNE, CNRS Researcher, Research Center for Infectiology Research, ENS-Lyon

CNRS PhD student: Amandine LE CORF

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UArizona PhD student: Tomasz WLODARCZYK

CNRS PI: Claude GRISON, CNRS Research director, ChimEco Laboratory, Montpellier University

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CNRS PhD student: Arthur LASBLEIZ

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PhD Joint Project: *“Environmental Justice, Extraction and Cultural Resistance in Africa”*

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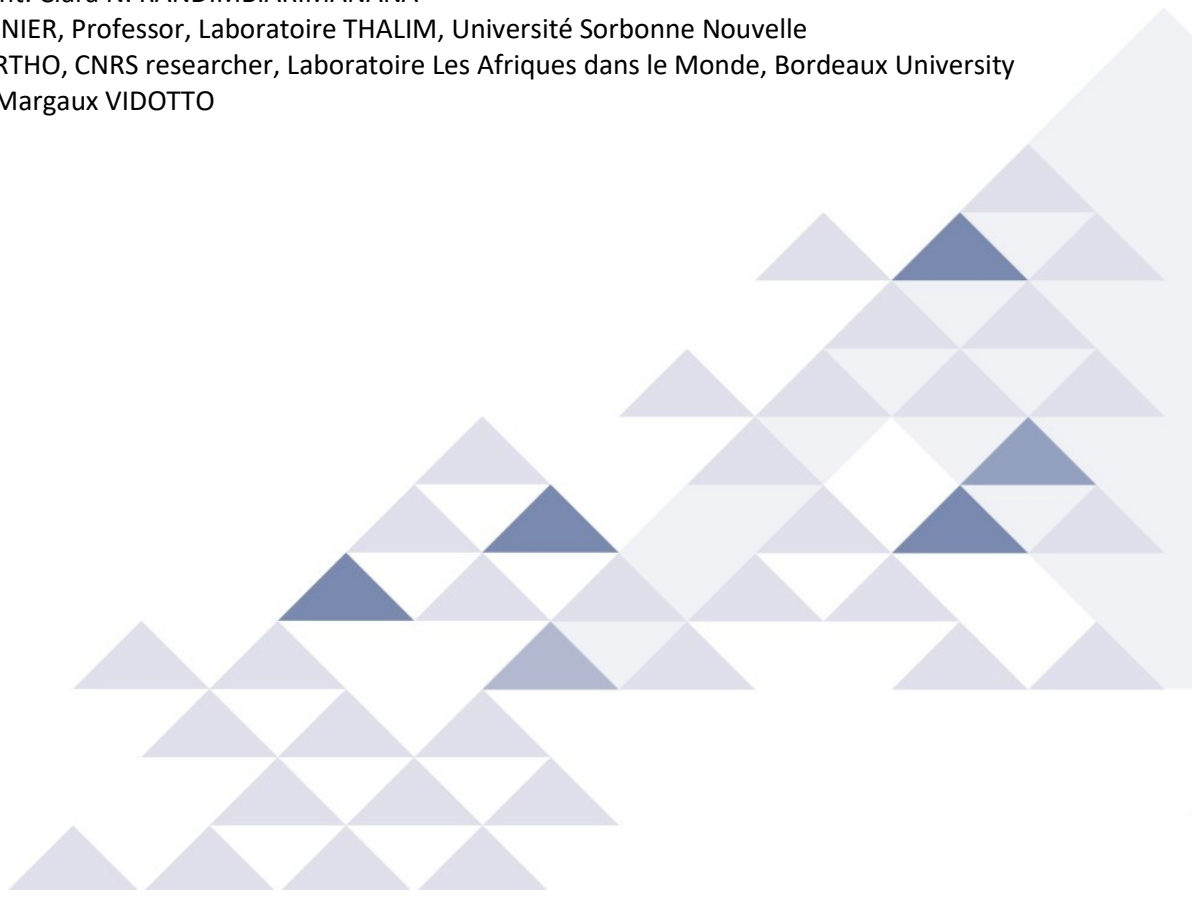
UArizona coPI: Aurélie MOUZET, Assistant professor, French Studies

UArizona PhD student: Clara N. RANDIMBIARIMANANA

CNRS PI: Xavier GARNIER, Professor, Laboratoire THALIM, Université Sorbonne Nouvelle

CNRS coPI: Elara BERTHO, CNRS researcher, Laboratoire Les Afriques dans le Monde, Bordeaux University

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UArizona coPI: Katrina DLUGOSCH, Associate professor, Ecology and Evolutionary Biology

UArizona coPI: Scott SALESKA, Professor, Ecology and Evolutionary Biology

UArizona PhD student: Taro SCHMEECKLE

CNRS PI: Samuel ABIVEN, Professor, Geosciences, ENS, Ecotron IleDeFrance

CNRS PhD student: Baptiste HULIN, Geosciences, ENS, Ecotron IleDeFrance

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UArizona PI: Dr. Elisabeth KRAUSE, Assistant Professor, Physics and Astronomy

UArizona PhD student: Pranjal RAJENDRA SINGH

CNRS PI: Dr. Karim BENABED, Institut d’Astrophysique de Paris

CNRS PhD student: Emma AYCOBERRY

International Emerging Action: *“Argumentation theory and natural language processing for participatory democracy”*

UArizona PI: Mihai SURDEANU, Associate professor, Data science

CNRS PI: Srdjan VESIC, CNRS researcher, University of Artois

International Emerging Action: *“Digital Twin for Surgical Training and Custom Surgery”*

UArizona PI: Dr. Jerzy ROSENBLIT, Distinguished Professor, Chair, Electrical and Computer Engineering

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UArizona PI: Jianqiang CHENG, Assistant professor, Systems and Industrial Engineering

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UArizona PI: Dr. Thomas GIANETTI, Assistant Professor, Chemistry and Biochemistry

UArizona coPI: Dr. Jules MOUTET, Postdoctoral research assistant, Chemistry and Biochemistry

CNRS PI: Dr. Gregory NOCTON, Professor, Ecole Polytechnique

International Emerging Action: *“Agency/Expectation/Intention/Opposition/Universality: Influences on actions in language”*

UArizona PI: Heidi HARLEY, Professor, Acting Head, Linguistics

CNRS PI: Bridget COPLEY, University Paris 8

