

# 若手研NEWS

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Young Researcher News



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Chao-hui Feng

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Special Postdoctoral Researcher

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Special Postdoctoral Researcher

2) 大学院生リサーチ・アソシエイト

Junior Research Associate

3) 国際プログラム・アソシエイト

International Program Associate

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RIKEN's  
Programs for  
Junior Scientists

理化学研究所

# Where there is a will, there is a way

## Chao-hui Feng

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基礎科学特別研究員

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Special Postdoctoral Researcher



My research interests lie on the frontier of meat science and food technology and target the development of food technology to exploit new foodstuffs, improve food quality, and rapidly detect food safety. Now, I am very happy to work at RIKEN Centre for Advanced Photonics under the supervision of Professor Otani, who has led an excellent terahertz spectroscopy and imaging research group for a number of years. Our research group's work includes the investigation of the kinetics of polymorphic transitions of cyclohexanol investigated by terahertz spectroscopy and the application of THz sensing and imaging of polymers and molecular structures and functions<sup>[1-4]</sup>. Although I didn't have much experience in terahertz spectroscopy, Professor Otani and the members in our group offered their invaluable guidance and assistance. They gave me a lot of knowledge about terahertz spectroscopy and supported me to quickly connect my research background to the new field, which will greatly enable my research work to be more innovative. Unlike the sophisticated spectroscopic and imaging techniques already established, like hyperspectral imaging<sup>[5-8]</sup>, Raman spectroscopy<sup>[9]</sup>, and NIR images<sup>[10]</sup>, the application of terahertz spectroscopy in foodstuffs is still in its infancy. This is because water is a strong THz wave absorber, which is the major limitation for comprehensive application of THz in the food industry. Our research studies therefore confront a great challenge and difficulty. Despite failing several times to obtaining suitable sample preparations for THz spectroscopy measurement, my supervisor

continuously encourages me, and we believe that we can overcome the problems we face and finally obtain a fruitful outcome. As the saying goes "where there is a will, there is a way".

I feel very lucky to have joined Professor Otani's research group, where I am able to conduct research freely. In this environment, I've had the opportunity to read the literature I am interested in, to participate in conferences and broaden my research network. Owing to the great support from my supervisor, I obtained Global Peer Review Awards: Top Peer Reviewers for placing in the top 1% of reviewers in Agricultural Sciences on the Publons global reviewer database, determined by the number of peer review reports performed during the 2018-2019 award year. Within the 8-month joining in RIKEN, 2 SCI papers have been accepted for publication in peer-reviewed international journals with the high impact factors, 1 poster published and 1 oral presentation presented in "the All-Riken Workshop 2019" and there is another one SCI paper under review. I also receive a Letter of Appreciation from President Matsumoto for my

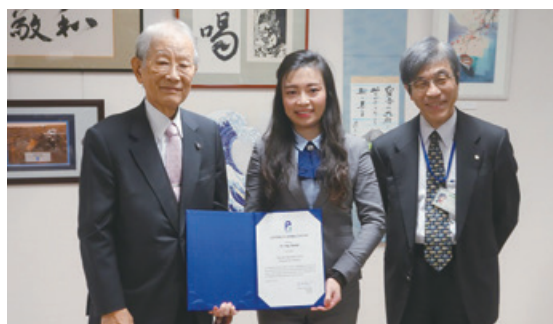


Figure1: Pictures taken during the awarding ceremony.



Figure2: Pictures taken during the Open Day for public.

research achievements and contribution to increased public recognition of RIKEN and its scientific activities.

Apart from research work, we also held the meaningful and interesting Open Day to introduce the public to our research work. At this event, we could showcase our research to the public and give them a better understanding of our research work via participation in our demonstration. The most important thing was to stimulate the children's interests in science via this "playing". They were eager to understand the principles of the experiments. Figure 2 (b) shows the floating movement of the frozen superconductor coaster under the magnet rail, which was the most popular course tried by both kids and adults. I enjoyed teaching the little kids and explaining the procedures and principles of the trial. I felt satisfied when the children "tasted" the fascination of science and

explored the possibility of contributing to society by becoming scientists when they grow up. This reminded me of the dreams I had when I was child. During my childhood, I always watched films about the story of Marie Sklodowska Curie or Thomas Edison. I was deeply moved by their strong will and enthusiasm for science, which greatly encouraged me to pursue the truth of science and to discover or exploit new things from science. I dreamed that I could become an excellent researcher like them and dedicate myself to science and benefit society.

RIKEN has implemented very good rules that promote work-life balance, which enable researchers to enjoy both research and daily life. Life in Sendai is incredibly interesting for me, and this can be attributed to the care and support I receive from the members and secretaries in our team, which makes me feel like



Figure3: Introduction of Fujino Sensei.





Figure 4: Life in Sendai. A statue of Lu Xun (a), and a fireworks performance during summer vacation (b).

part of a family. Sendai is well known to all Chinese people due to “Lu Xun (鲁迅)”, who is the greatest figure of modern Chinese literature. I have learned a lot from his works like “Kong Yiji”, “Medicine”, “The True Story of Ah Q”, “Diary of a Madman”, “The collapse of Leifeng Pagoda”, “Mr. Fujino” and so on. Among them, the most impressive work for me is “Mr. Fujino”, which was written by him when he was a medical student at the Sendai Medical Academy (now at Tohoku University). When I read this text, I was curious about a professor described in the text called “Professor Fujino Genkuro”, and I never imagined that I would work at Sendai one day. Figure 3 displays the section taken from the text of “Mr. Fujino”, which is now shown in the museum of Tohoku University. I can also feel how “Lu Xun (鲁迅)” is respected by Japanese people, as I find his statue everywhere in Sendai [Fig. 4 (a)].

Life in Sendai is colourful, and I have learned a lot of interesting things about culture. People here enjoy a peaceful and happy life.

Finally, I would like to express my sincere gratitude to my respected supervisor, Professor Otani, for giving me the opportunity to pursue and continue my research work and for his unwavering encouragement throughout the entire duration of my work. I also wish to express my appreciation to all my colleagues at RIKEN Centre for Advanced Photonics for their generous assistance.

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# Embrace the chance to make life changing decisions

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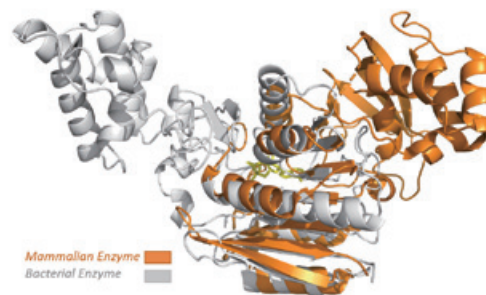


When I first knew that I would be given a chance to write a short essay for the researcher news, I had a question in my mind. Who am I writing this to? It is difficult for me, as a student, to write an in-depth academic or philosophical article, so I decided to share something about daily life, something about my experience at RIKEN, as well as in Japan so far.

But before that, I think I should at least introduce myself. I have a mixed educational background. I grew up and finished my high school in mainland China, with my major being history and literature. My future was well paved, arranged by my traditional Chinese family like many families did for their kids at that time. If things had remained on track, I would have spent the next 20-30 years sitting in an office in China living a relatively predictable life. To avoid this, I dropped out of university shortly after entering, and I moved to Canada. This made my father furious with me until only very recently. Since then, I have planned to do something different, something that might keep me in the mist. My English was terrible back then (even now I am struggling), so I asked my adviser “which major do you recommend if I want to quickly improve my English?”. Her suggestion was straight forward: “You should step away from your original community to gain more exposure to your new language”. Thanks to that advice, I made one of the most important decisions in my life - changing my major from history to biology. I failed almost every course in my first year, and at that time, I had no clue about how far this decision would take me. But to be frank, I love making life changing decisions, and I am not afraid to do it. So again,

instead of transferring to a Ph.D program in Canada, I decided to move to Japan. I do not know where this decision will lead me, but for me, making life changing decisions is like a bad habit that I cannot resist.

Having a wild thought is somehow necessary, as a scientist. So, as a not-so-qualified scientist, I like asking evolutionary questions, just as much as I like to witness how decisions can change my life. Our world is vast. I want to know how different species make evolutionary decisions that potentially cause phylogenetic splits. Of course, I am not asking those species like “hey, why are you different from your cousins?”. Instead, I am looking for certain conserved functions that are shared between these species. I am now working on an enzyme that exists in both mitochondria and bacteria. In bacteria, this enzyme is crucial for their survival, whereas in mammals, it is redundant. I don't want to delve into this topic here, but considering evolutionary patterns, I believe there must be some reasons why we have retained this enzyme even though there is limited demand for it.



Mammalian ortholog superimposed on its bacterial ancestor – *The main function of these two proteins is conserved. Additional functions of mammalian enzyme may be accounted for by the speciation events that occurred during the evolutionary process.*

To be honest, I don't think I would have such freedom to choose my research topic if I was not at RIKEN. My supervisor is very supportive and the team here is very friendly. I also like the RIKEN campus as a whole. When I was doing my masters in Canada, one of my colleagues was Japanese and he told me a bit about RIKEN. Even so, when I first arrived here, everything seemed so small. But although things are small here, they are nicely arranged and in order. Unlike the vast campus in Canada where there is an abundance of land, RIKEN is compact and functional. I have been working at many places, but RIKEN's Wako Campus really makes everything so accessible.

I had heard a lot about Japan's hard-working traditions before I came here. To be frank, I think work and life here at RIKEN is quite well balanced; and I believe Japan has more national holidays than Canada. Aside from just doing research on your own, one thing I really appreciate is that RIKEN offers great opportunities for both students and researchers to get involved in many different fields. Recently, academia has moved into a more multi- or interdisciplinary era, and opportunities to get exposure to cutting-edge research in other fields is very important to promote cross-field collaborations. Although I just started the second year of my Ph.D. at RIKEN, I am currently collaborating with two labs as a result of listening to their talks. People here are highly specialized and it is very easy to establish productive collaborations if you know what others are interested in. I value this as a very efficient way to move our research forward. I am also shocked by the number of academic meetings that I have attended

so far. I think this is another great aspect of the research environment here for both students and young researchers. I strongly recommend others to attend seminars in different fields as enables you to expand your toolbox quickly and effortlessly.

But there is something I would like to point out. These days, I have been hearing a lot of claims about how Japan's scientific output is declining. I am not 100% sure if this is the case. However, there is one thing I am quite sure of: many of the interesting findings are not being properly propagated. The fact is, RIKEN, as an open, top-tiered institute of Japan, still holds a significant number of talks and seminars that are only available in Japanese and not accessible to those outside of RIKEN. What is the situation at other research institutes in Japan?

As I mentioned above, RIKEN affords me some leisure time. So, what do I do during my leisure time? I enjoy travelling here in Japan, using the very convenient railway system. I have been to a couple of mountains, and the hiking experiences here are extremely good. I hope to have the chance to explore more when my project is on the right track. And, if I have more time, I also want to learn Japanese, as I believe a new language is an extremely valuable asset.

I planned to write only 1000 words, but I think I am way over that now. But I would like to say this again, as it is probably something that I will carry through my entire life: Embrace every chance to make life changing decisions. I am not talking about taking reckless risks, but we need to create change, and as scientists, we are working to



Kita-dake - Hiking with many other sensei after the Takato Symposium (I really can't believe I made it!)

make a difference. I very much love to see differences, to try new things. Good science comes with good questions. And good questions are sometimes from your



1) Ginkgo at RIKEN (Wako) – Occasionally, I submit some campus shots to the RIKEN internal website (This one is the Nov. 20 post).

imagination. I am looking forward to seeing how my experience here can further broaden my imagination.



2) 紅葉 at Karuizawa – Japan has four distinct seasons each year. RIKEN Foundation Day presents a good opportunity to travel if you want to avoid crowds.

## essay

# ボーダーレスな研究者に Becoming a borderless researcher

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私はJRA初年度に、アメリカのメリーランド州にあるNASAゴダード宇宙センターに半年間滞在して研究してきました。滞在の目的は日本とアメリカの天文観測機の連携で得られたデータの解析と、その連携の強化でした。研究内容を一言で言えば「X線で宇宙を見る」ことです。一般的にはなんと馴染みの無い分野ですが、X線で見る宇宙は数千万度にも達する熱くエネルギーに満ちた世界が広がっています。その中でも、私の研究対象である恒星の表面でおこるフレアなど、突発的な変動を見せる現象があります。しかし、これらは予期できない突発現象のため発見

During my first year as a JRA, I spent half a year researching at NASA's Goddard Space Flight Center in Maryland, United States. The goals of my stay were to analyze data obtained through collaborations involving American and Japanese astronomical observation equipment and to strengthen those collaborations. My research there can be summed up as *viewing the universe through X-rays*. It's not the type of research the average person has any familiarity with, but viewing the universe through X-rays reveals a widening world full of heat and energy generated from millions upon millions of sources. Among them, my research focused on phenomena that exhibit sudden changes, like the flares that occur on the surfaces of stars. However, because





図1: ワシントンD.C.のシンボルのワシントンモニュメント。付近には美術館や大きい公園があります。おすすめは国立航空宇宙博物館 (National Air and Space Museum)。

Figure1: The Washington Monument, a symbol of Washington, D.C., with a large park and museums nearby. I recommend visiting the National Air and Space Museum.

も難しく、その詳細な観測は運頼みになってしまいます。そこで、それら突発現象を狙い撃ちするために、正反対の特性を持つ2つのX線観測機を組み合わせた観測が日本とアメリカの連携で始まりました。

連携観測に使う2つの検出器は、日本の全天X線監視装置MAXIとアメリカのX線観測機NICERです。MAXIは宇宙全体を「広く浅く」監視することで新たな天体や爆発現象を見つけられる特徴を持ち、NICERは過去最高感度の検出器で「狭く深く」天体を観測して詳細な情報を得られるのが特徴です。私はこの連携にMAXIの運用チーム側から参加してきました。地上経由の連携によって突発現象の観測がこれまでにいくつも実施されました。今後は国際宇宙ステーション上でMAXIとNICERを直接繋げて、これまでにないスピードでの連携観測を開始する予



図2: 住んでいたマンションの屋上。ワシントンD.C.を一望できます。友人を招待してここでお酒を飲むこともしばしば。

Figure2: The roof of my apartment building, which featured a sweeping view of Washington, D.C. I frequently invited my friends over to drink here.

these sudden phenomena are hard to predict, discovering them is difficult, and obtaining detailed observations of them is currently a matter of luck. There, a collaborated observation using two X-ray detectors, which have utterly opposite characteristics, between Japan and U.S. was started to shoot such a transient.

The two X-ray detectors used in the joint observations, both on board the International Space Station, are MAXI (Monitor of All-sky X-ray Image), a Japanese X-ray monitor that surveys the entire sky, and NICER (Neutron star Interior Composition Explorer), an American X-ray detector. By monitoring the entire sky broadly and shallowly, MAXI can find new astronomical objects and explosive phenomena, whereas NICER's strength is the ability to observe specific astronomical objects narrowly and deeply to obtain detailed information through its sensors, which have higher sensitivity than those of previously developed instruments. Within this collaboration, I participated on the MAXI operation team. Many collaborated observation for transients have been carried out via ground operations. In the future, the teams plan to directly connect MAXI and NICER on the International Space Station so they can begin making joint observations at speeds previously unheard of. I have great expectations that this will significantly deepen our understanding of the sudden phenomena we research.

定で、ますます突発現象の理解が深まることが期待されています。

研究以外のアメリカでの生活を振り返ると、出会いに恵まれていたなと感じます。私は研究所へのアクセスが良い首都ワシントンD.C.に家を借りたのですが、なんと昔マッカーサーが暮らしていたと言われるマンションでした！ワシントンD.C.は世界中から人が集まっていて、外国で暮らすお互いの苦労を知っているからか、みんな優しいです。また、様々な国の、様々な職種に人と出会う機会も多い街でした。彼らに宇宙物理の研究をしていると言うと、宇宙についての質問が止まらないことも。世界中の人が興味を持ってくれる仕事をしていることが嬉しかった一方で、日本ではそういったことはあまりなく、そのギャップにも驚かされました。そこで今では、日本でも宇宙への興味をもっと持ってもらえるように、更には世界中の人の宇宙への興味に答えられるような発信をしていきたいと思っています。

12月末からは「政府閉鎖」といういかにもアメリカなイベントにも巻き込まれました。政府閉鎖とは、予算の議決が国会で通らないので給料も施設維持費も払えません、政府機関を閉鎖します、といった感じです。NASAももれなく国の研究機関なのでお休み。大体1週間くらいで終わるよと言われていたのに、歴史上最長記録なんてものを更新され、終わったのは1ヶ月後の留学終了2日前です。チームメンバーや友人に挨拶できたのが不幸中の幸いでした。

半年間という短い間でしたが、この滞在は研究への姿勢や、今後の進路を考えるいいキッカケになりました。今後は世界中の人に宇宙への興味を持ってもらえるように、更に挑戦していきたいと思っています。

When I think about my life in the U.S. outside of research, I feel fortunate that I was able to meet and connect with many people. I rented an apartment in a building in Washington, D.C. with good access to the space center that General MacArthur is said to have once lived in! People from all over the world gather in Washington, D.C., and—maybe because they too understand the difficulties of living in a foreign country—everyone was kind to me. D.C. also offered me so many opportunities to encounter people from all sorts of countries and jobs. Sometimes, when I told them I research astrophysics, questions about space just wouldn't stop. While part of me was thrilled that I was doing work that people from all over the world were interested in, another part of me was shocked at the gap between those reactions and the kind I get in Japan, where people rarely take such an interest. Now, I'd like to share what I'm researching so that I can inspire the interest of people here in Japan and further respond to the interest that people around the globe have in space.

At the end of December 2018, I got caught up in a distinctly American event, a government shutdown. A national government shutdown happens when Congress doesn't pass budget legislation, so government organizations close for as long as the shutdown lasts because they can't pay salaries or facility maintenance costs. Because NASA is a national research organization, the entire agency had to shut down, too. Even though I was told the shutdown would end in about a week, it not only turned out to be longer than expected, but it also broke the record for the longest shutdown in history! It finally ended only two days before I had to leave the U.S. Being able to say goodbye to my team members and friends was the silver lining of the dark cloud of my final month there.

Even though I was only there for six short months, my stay gave me a great chance to rethink my attitude toward my research and my future path. Going forward, I'd like to challenge myself further and get people all around the world interested in space.

## 主な受賞

### 基礎科学特別研究員

受賞者氏名	所属研究室	賞の名称	授与団体等	受賞日
Kadir Utku Can	仁科加速器科学研究センター ストレンジネス核物理研究室	Asian Nuclear Physics Association & AAPPS-DNP Award for Young Scientist, Second Prize	—	2019/09/28
江崎 加代子	脳神経科学研究センター 分子精神遺伝研究チーム	第14回日本統合失調症学会一般演題奨励賞	日本統合失調症学会	2019/04/20
Chaohui Feng	光量子工学研究センター テラヘルツイメージング研究チーム	Top Peer Reviewer 2019	Web of Science Group	2019/09/17
Sooyeon Kim	生命機能科学研究センター 細胞システム制御学研究ユニット	第41回日本光医学・光生物学会 奨励賞	The Japanese Society for Photomedicine and Photobiology	2019/08/30
Cody Kime	生命機能科学研究センター 網膜再生医療研究開発プロジェクト	ISSCR 2019 Travel Awards	International Society For Stem Cell Research	2019/06
Cody Kime	生命機能科学研究センター 網膜再生医療研究開発プロジェクト	ISSCR 2019 Merit Awards	International Society For Stem Cell Research	2019/06
河野 信吾	創発物性科学研究センター 超伝導量子エレクトロニクス 研究チーム	第39回 量子情報技術研究会学生発表賞	電子情報通信学会エレクトロニクスソサエティ 量子情報技術特別研究専門委員会	2019/04/05
小澤 大知	光量子工学研究センター 量子オプトエレクトロニクス 研究チーム	第16回飯島奨励賞	フラーレン・ナノチューブ・グラフェン学会	2019/10/29
紅林 大地	創発物性科学研究センター 強相関理論研究グループ	2nd Prize Winner in the poster EXHIBIT AND COMPETITION	International Workshop Spintronic 2019	2019/10/20-25
Xiaoxi Liu	生命医学科学研究センター ゲノム免疫生物学理研白眉 研究チーム	Abstract Award	11th International Conference on Human Herpesviruses 6 and 7	2019/06/26
松尾 貞茂	創発物性科学研究センター 量子機能システム研究グループ	船井研究奨励賞	公益財団法人船井情報科学振興財団	2019/04
松尾 貞茂	創発物性科学研究センター 量子機能システム研究グループ	NF基金研究開発奨励賞	一般財団法人エヌエフ基金	2019/11
中野 恭兵	創発物性科学研究センター 創発機能高分子研究チーム	講演奨励賞	応用物理学会	2019/09/18
鬼丸 洸	生命機能科学研究センター バイオフィーマティクス 研究開発チーム	ポスター賞	日本バイオフィーマティクス学会2019年年会 第8回生命医薬情報学連合大会	2019/09/11
佐野 航季	創発物性科学研究センター 創発生体関連ソフトマター 研究チーム	第8回ものづくり日本大賞 内閣総理大臣賞	経済産業省	2020/01/08
清家 泰介	生命機能科学研究センター 多階層生命動態研究チーム	第13回日本ゲノム微生物学会年間優秀ポスター賞	Society of Genome Microbiology, Japan	2019/03/08
Daniela Serien	光量子工学研究センター 先端レーザー加工研究チーム	3D Printing, Fabrication, and Manufacturing Best Paper Award	SPIE Photonics West 2019	2019/02/04
Daniela Serien	光量子工学研究センター 先端レーザー加工研究チーム	Opto-Electronic Advances 2018-2019 Best Paper Award	Institute of Optics and Electronics (IOE), Chinese Academy of Sciences (CAS)	2019/07/15
鈴木 大地	創発物性科学研究センター 量子効果デバイス研究チーム	手島精一記念研究賞(博士論文賞)	国立大学法人東京工業大学	2019/02/21
田村 康一	計算科学研究センター 粒子系生物物理研究チーム	若手奨励賞	日本蛋白質科学会	2019/06/25
田村 康一	計算科学研究センター 粒子系生物物理研究チーム	HPCI 利用研究課題優秀成果賞	一般財団法人高度情報科学技術研究機構	2019/11/01
田村 康一	計算科学研究センター 粒子系生物物理研究チーム	Poster Award	The 5th International Conference on Molecular Simulation (ICMS2019)	2019/11/05
谷本 悠生	脳神経科学研究センター 意思決定回路動態研究チーム	若手優秀発表賞(一般枠)	次世代脳プロジェクト 冬のシンポジウム	2019/12/19



# Award List

## Special Postdoctoral Researcher (SPDR)

Awardee	Laboratory	Name of Award	Sponsoring organization	Date of award
Kadir Utku Can	RIKEN Nishina Center for Accelerator-Based Science, Strangeness Nuclear Physics Laboratory	Asian Nuclear Physics Association & AAPPS-DNP Award for Young Scientist, Second Prize	—	2019/09/28
Kayoko Esaki	RIKEN Center for Brain Science, Laboratory for Molecular Psychiatry	The 14th Annual Meeting of Japanese Society of Schizophrenia Research, General Presentation Award Encouragement Award	Japanese Society of Schizophrenia Research	2019/04/20
Chaohui Feng	RIKEN Center for Advanced Photonics Terahertz Sensing and Imaging Research Team	Top Peer Reviewer 2019	Web of Science Group	2019/09/17
Sooyeon Kim	RIKEN Center for Biosystems Dynamics Research, Laboratory for Cell Systems Dynamics	—	The Japanese Society for Photomedicine and Photobiology	2019/08/30
Cody Kime	RIKEN Center for Biosystems Dynamics Research, Laboratory for Retinal Regeneration	ISSCR 2019 Travel Awards	International Society For Stem Cell Research	2019/06
Cody Kime	RIKEN Center for Biosystems Dynamics Research, Laboratory for Retinal Regeneration	ISSCR 2019 Merit Awards	International Society For Stem Cell Research	2019/06
Shingo Kono	RIKEN Center for Emergent Matter Science Superconducting Quantum Electronics Research Team	Student Presentation Award at The 39th Quantum Information Technology Symposium	IEICE Electronics Society	2019/04/05
Daichi Kozawa	RIKEN Center for Advanced Photonics, Quantum Optoelectronics Research Team	The 16th Iijima Award for Young Scientists	The Fullerenes, Nanotubes and Graphene Research Society	2019/10/29
Daichi Kurebayashi	RIKEN Center for Emergent Matter Science, Strong Correlation Theory Research Group	2nd Prize Winner in the poster EXHIBIT AND COMPETITION	International Workshop Spintronic 2019	2019/10/20-25
Xiaoxi Liu	RIKEN Center for Integrative Medical Sciences, Genome Immunobiology RIKEN Hakubi Research Team	Abstract Award	11th International Conference on Human Herpesviruses 6 and 7	2019/06/26
Sadashige Matsuo	RIKEN Center for Emergent Matter Science, Quantum Functional System Research Group	—	The Funai Foundation for Information Technology (FFIT)	2019/04
Sadashige Matsuo	RIKEN Center for Emergent Matter Science, Quantum Functional System Research Group	NF Foundation R&D Encouragement Award	NF Foundation	2019/11
Kyohei Nakano	RIKEN Center for Emergent Matter Science, Emergent Functional Polymers Research Team	—	The Japan Society of Applied Physics	2019/09/18
Koh Onimaru	RIKEN Center for Biosystems Dynamics Research, Laboratory for Bioinformatics Research	Poster Award	Japanese Society for Bioinformatics	2019/09/11
Koki Sano	RIKEN Center for Emergent Matter Science, Emergent Bioinspired Soft Matter Research Team	The 8th Monodzukuri Nippon Grand Award Prime Minister's Prize	Ministry of Economy, Trade and Industry	2020/01/08
Taisuke Seike	RIKEN Center for Biosystems Dynamics Research, Laboratory for Multiscale Biosystem Dynamics	13th Society of Genome Microbiology, Japan Excellent Poster Award	Society of Genome Microbiology, Japan	2019/03/08
Daniela Serien	RIKEN Center for Advanced Photonics Advanced Laser Processing Research Team	3D Printing, Fabrication, and Manufacturing Best Paper Award	SPIE Photonics West 2019	2019/02/04
Daniela Serien	RIKEN Center for Advanced Photonics Advanced Laser Processing Research Team	Opto-Electronic Advances 2018-2019 Best Paper Award	Institute of Optics and Electronics (IOE), Chinese Academy of Sciences (CAS)	2019/07/15
Daichi Suzuki	RIKEN Center for Emergent Matter Science Quantum Effect Device Research Team	Seiichi Tejima Research Award	Tokyo Institute of Technology	2019/02/21
Koichi Tamura	RIKEN Center for Computational Science, Computational Biophysics Research Team	Young Scientist Award	Protein Science Society of Japan	2019/06/25
Koichi Tamura	RIKEN Center for Computational Science, Computational Biophysics Research Team	HPCI Excellent Achievement Award	Research Organization for Information Science and Technology (RIST)	2019/11/01
Koichi Tamura	RIKEN Center for Computational Science, Computational Biophysics Research Team	Poster Award	The 5th International Conference on Molecular Simulation (ICMS2019)	2019/11/05
Yuki Tanimoto	RIKEN Center for Brain Science, Laboratory for Neural Circuit Dynamics of Decision Making	—	—	2019/12/19

多羅間 充輔	生命機能科学研究センター フィジカルバイオロジー 研究チーム	ポスター賞	第9回ソフトマター研究会	2019/11/27
富谷 昭夫	仁科加速器科学研究センター 理研BNL研究センター 計算物理研究グループ	第14回(2019年度)素粒子メダル奨励賞	素粒子論委員会	2019/09/19

## 大学院生リサーチ・アソシエイト

受賞者氏名	所属研究室	賞の名称	授与団体等	受賞日
古澤 拓也	開拓研究本部 古崎物性理論研究室	ポスターレビュー賞	トポロジカル物質科学	2019/06/12
段 昊	光量子工学研究センター 先端光学素子開発チーム	Excellent Paper Award	ISAAT2019 Organization Committee	2019/12/16
木村 悠介	開拓研究本部 岩崎RNAシステム生化学研究室	RNA 2019 Travel Award	RNA Society	2019/03/05
木村 悠介	開拓研究本部 岩崎RNAシステム生化学研究室	国際会議参加経費支援	日本RNA学会	2019/06/28
庭瀬 暁隆	仁科加速器科学研究センター 超重元素研究開発部 超重元素分析装置開発チーム	若手優秀発表賞	日本放射化学会	2019/09/26
大伴 直央	生命医科学研究センター 骨関節疾患研究チーム	Hibbs Basic Research Award	Scoliosis Research Society	2019/09/21
大伴 直央	生命医科学研究センター 骨関節疾患研究チーム	16th International Phillip Zorab Symposium Best paper award	British Scoliosis Research Foundation	2019/06/21
佐藤 香織	脳神経科学研究センター 神経老化制御研究チーム	JNS-SfN Exchange Travel Award	日本神経科学会	2019/05/03
清水 優太郎	光量子工学研究センター 生細胞超解像イメージング研究チーム	新学術領域研究 「オルガネラ・ゾーン」 平成30年度若手の会 最優秀発表賞	文科省科研費・新学術領域研究 「オルガネラ・ゾーン」平成30年度若手の会	2019/01/25
杉原 健太	仁科加速器科学研究センター 安全業務室	核データ研究会 ポスター賞	日本原子力学会核データ部会	2019/11/28
高村 理沙	脳神経科学研究センター 神経老化制御研究チーム	Junior Faculty Awards at the AD/PD 2019	Kenes International Organizers of Congresses S.A.	2019/03/28
高村 理沙	脳神経科学研究センター 神経老化制御研究チーム	国内トラベルアワード	第42回日本神経科学大会/ 第62回日本神経化学学会大会	2019/07/25-28
高尾 理沙	環境資源科学研究センター ケミカルバイオロジー研究グループ	第24回 化学生物学研究会 口頭発表の部 優秀発表賞(第三位)	化学生物学研究会	2019/11/15
田中 智之	革新知能統合研究センター 汎用基盤技術研究グループ 数理科学チーム	Student Paper Prize	East Asia Section of Society for Industrial and Applied Mathematics	2019/06/14
田中 智之	革新知能統合研究センター 汎用基盤技術研究グループ 数理科学チーム	ベストポスター発表	日本数学会	2019/10/26
山田 隼嗣	環境資源科学研究センター 環境代謝分析研究チーム	トラベルグラント賞	第8回アジア太平洋NMRシンポジウム2019	2019/07/04
好岡 大輔	生命機能科学研究センター 細胞シグナル動態研究チーム	海外論文発表奨励賞	生産技術振興協会	2019/10/10
玉素甫 艾山	生命機能科学研究センター 集積バイオデバイス研究チーム	Hot Article Award	Analytical Sciences Publication	2019/05/10

## 国際プログラム・アソシエイト

受賞者氏名	所属研究室	賞の名称	授与団体等	受賞日
Yu Li	前田バイオ工学研究室	高分子学会優秀ポスター賞	公益社団法人 高分子学会	2019/05/31

Mitsusuke Tarama	RIKEN Center for Biosystems Dynamics Research, Laboratory for Physical Biology	Poster Prize	The 9th Soft Matter Workshop	2019/11/27
Akio Tomiya	RIKEN Nishina Center for Accelerator-Based Science RIKEN BNL Research Center Computing Group	Particle Physics Medal: Young Scientist Award in Theoretical Particle Physics	Theoretical Particle Physics Committee	2019/09/19

### Junior Research Associate (JRA)

Awardee	Laboratory	Name of Award	Sponsoring organization	Date of award
Takuya Furusawa	RIKEN Cluster for Pioneering Research, Condensed Matter Theory Laboratory	Preview Award	Topological Material Science	2019/06/12
Duan Hao	RIKEN Center for Advanced Photonics, Ultrahigh Precision Optics Technology Team	Excellent Paper Award	ISAAT2019 Organization Committee	2019/12/08
Yusuke Kimura	RIKEN Cluster for Pioneering Research, RNA Systems Biochemistry Laboratory	RNA 2019 Travel Award	RNA Society	2019/03/05
Yusuke Kimura	RIKEN Cluster for Pioneering Research, RNA Systems Biochemistry Laboratory	RNAJ Travel Awards	The RNA Society of Japan	2019/06/28
Toshitaka Niwase	RIKEN Nishina Center for Accelerator-Based Science, Superheavy Element Research Group, Superheavy Element Device Development Team	Young Scientist Presentation Awards	Japan Society of Nuclear and Radiochemical Sciences	2019/09/26
Nao Otomo	RIKEN Center for Integrative Medical Sciences, Laboratory for Bone and Joint Diseases	Hibbs Basic Research Award	Scoliosis Research Society	2019/09/21
Nao Otomo	RIKEN Center for Integrative Medical Sciences, Laboratory for Bone and Joint Diseases	16th International Phillip Zorab Symposium Best paper award	British Scoliosis Research Foundation	2019/06/21
Kaori Sato	RIKEN Center for Brain Science, Laboratory for Proteolytic Neuroscience	JNS-SfN Exchange Travel Award	The Japan Neuroscience Society	2019/05/03
Yutaro Shimizu	RIKEN Center for Advanced Photonics Live Cell Super-Resolution Imaging Research Team	Best Presentation Award of Young researcher meeting of Organelle Zone	Grant-in-Aid for Scientific Research on Innovative Areas "Organelle Zone"	2019/01/25
Kenta Sugihara	RIKEN Nishina Center for Accelerator-Based Science, Safety Management Group	Symposium on Nuclear Data Poster Presentation Award	Nuclear Data Subcommittee, Atomic Energy Society of Japan	2019/11/28
Risa Takamura	RIKEN Center for Brain Science, Laboratory for Proteolytic Neuroscience	Junior Faculty Awards at the AD/PD 2019	Kenes International Organizers of Congresses S.A.	2019/03/28
Risa Takamura	RIKEN Center for Brain Science, Laboratory for Proteolytic Neuroscience	Domestic Travel Award	NEURO2019	2019/07/25-28
Risa Takao	RIKEN Center for Sustainable Resource Science, Chemical Biology Research Group	—	—	2019/11/15
Tomoyuki Tanaka	RIKEN Center for Advanced Intelligence Project, Generic Technology Research Group, Mathematical Science Team	Student Paper Prize	East Asia Section of Society for Industrial and Applied Mathematics	2019/06/14
Tomoyuki Tanaka	RIKEN Center for Advanced Intelligence Project, Generic Technology Research Group, Mathematical Science Team	Best Poster Award	The Mathematical Society of Japan	2019/10/26
Shunji Yamada	RIKEN Center for Sustainable Resource Science, Environmental Metabolic Analysis Research Team	Travel Grant Award	8th Asia-Pacific NMR Symposium 2019	2019/07/04
Daisuke Yoshioka	RIKEN Center for Biosystems Dynamics Research, Laboratory for Cell Signaling Dynamics	Encouragement Prize for Article Presentations Abroad	General Association for the Advancement of Manufacturing & Technology	2019/10/10
Aishan Yusufu	RIKEN Center for Biosystems Dynamics Research, Laboratory for Integrated Biodevice	Hot Article Award	Analytical Sciences Publication	2019/05/10

### International Program Associate (IPA)

Awardee	Laboratory	Name of Award	Sponsoring organization	Date of award
Yu Li	RIKEN Cluster for Pioneering Research, Bioengineering Laboratory	SPSJ SOM (SPSJ Symposium on Macromolecules) Poster Award	The Society of Polymer Science, Japan	2019/05/31



## 新メンバーの紹介 Newcomers

### 基礎科学特別研究員

Special Postdoctoral Researcher (SPDR)



**足立 景亮**

生体非平衡物理学理研白眉研究チーム  
多階層生体構造における相転移・相分離現象

**Kyosuke Adachi**

Nonequilibrium physics of living matter RIKEN Hakubi Research Team

Phase transition and phase separation in multi-scale biological systems



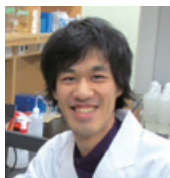
**相野 真行**

汎用基盤技術研究グループ 数理解析チーム  
リーマン多様体におけるラプリアンと誤差評価

**Masayuki Aino**

Mathematical Analysis Team

Laplacian on Riemannian manifolds and error estimates



**青木 亮**

視覚意思決定研究チーム  
ひらめきによる学習を支える後部頭頂皮質の計算機構と神経基盤

**Ryo Aoki**

Laboratory for Neural Circuits and Behavior

Computation and neural implementation for insight-based learning in posterior parietal cortex



**浅尾 泰彦**

汎用基盤技術研究グループ トポロジカルデータ解析チーム  
幾何学とデータ解析への統一視座の構築 - マグネチードホモロジーの幾何学的土台の確立、及びパーシステントホモロジーを介したデータ解析への応用の模索

**Yasuhiko Asao**

Topological Data Analysis Team

Construction of a unified perspective on geometry and data analysis - Establishment of geometric foundation of magnitude homology, and investigation of applications to data analysis via persistent homology



**Ilya Belopolski**

強相関量子伝導研究チーム  
Quantized magnetoelectric response and other exciting frontiers in topological magnetism

**Ilya Belopolski**

Strong Correlation Quantum Transport Research Team

Quantized magnetoelectric response and other exciting frontiers in topological magnetism



**Marco Capuccini**

フラッグシップ2020プロジェクト システムソフトウェア開発チーム  
System-Level Intelligent Agents using Deep Reinforcement Learning

**Marco Capuccini**

System Software Research Team

System-Level Intelligent Agents using Deep Reinforcement Learning



**Hector Climente Gonzalez**

汎用基盤技術研究グループ 高次元統計モデリングユニット  
Multi-omics data integration for epistasis detection

**Héctor Climente Gonzalez**

High-Dimensional Statistical Modeling Unit

Multi-omics data integration for epistasis detection



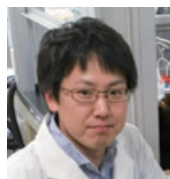
**榎本 泰典**

呼吸器形成研究チーム  
肺臓オルガノイド技術を用いた、肺線維症における上皮細胞老化の意義と新規薬剤の探索

**Yasunori Enomoto**

Laboratory for Lung Development

Significance of epithelial cellular senescence in lung fibrosis: discovery of new drugs using alveolar organoid technology



**榎本 航之**

創発超分子材料研究チーム  
環状配位子との複合形成によるコロイド量子ドットの低次元超構造体の構築

**Kazushi Enomoto**

Emergent Supramolecular Materials Research Team

Low-Dimensional Superstructures Built by the Complex Formation between Colloid Quantum Dots and Cyclic Ligands



**Nan Fang**

加藤ナノ量子フォトニクス研究室  
1次元/2次元ヘテロ構造における励起子物理とその応用

**Nan Fang**

Nanoscale Quantum Photonics Laboratory

Exciton physics in 1D-2D heterostructures and its applications



**福光 甘斎**

親和性社会行動研究チーム  
視察前野および鳥桃体領域による社会的接触行動の分子神経基盤の解明

**Kansai Fukumitsu**

Laboratory for Affiliative Social Behavior

Neural basis of social contact behavior



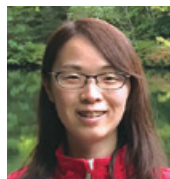
**後藤 ゆきみ**

数理創造プログラム  
量子力学的多体系の数学解析

**Yukimi Goto**

Interdisciplinary Mathematical Sciences Program

Mathematical analysis of quantum many body system



**橋本 真里**

ヒト疾患モデル研究チーム  
血球・免疫系細胞の分化に寄与する膜輸送タンパク質 solute carriers の探索および機能研究

**Mari Hashimoto**

Laboratory for Human Disease Models

Functional analysis of solute carriers in hematopoietic differentiation and leukemia development using humanized mice



**北條 望**

細胞システム動態予測研究チーム  
三次元組織における空間情報を保持した1細胞遺伝子発現解析法の開発と幹細胞研究への応用

**Nozomi Hojo**

Laboratory for Prediction of Cell Systems Dynamics

Development of single cell RNA-seq method for three-dimensional tissue retaining spatial information of each cell and its application to stem cell research



**本田 匠**

データ同化研究チーム  
雷予報モデルを用いたデータ同化による高度な数値天気予報の実現

**Takumi Honda**

Data Assimilation Research Team

Exploring the potential of an advanced data assimilation system with a lightning-predicting model



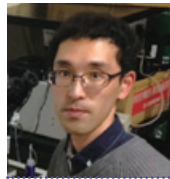
**Ahn Junyeong**

強相関理論研究グループ  
Strong Correlation Theory Research Group

**Ahn Junyeong**

Strong Correlation Theory Research Group

Physical Responses in Topological Crystalline Phases with Gapped Boundary States



**鹿又 喬平**

触媒・融合研究グループ  
樹木糖鎖が立体化学を制御するグリーン触媒反応の創出

**Kyohei Kanomata**

Catalysis and Integrated Research Group

Sustainable Asymmetric Catalysis on Wood Cellulose Nanofibers

写真  
Photo

氏名  
受入研究室  
研究課題  
Name  
Host Laboratory  
Research Topic



川口 有希子

比較コネクティブ研究チーム  
消化器機能を調節する交感神経系の分子遺伝学的解析

Yukiko Kawaguchi

Laboratory for Comparative Connectomics  
Molecular genetic analysis of sympathetic nervous system that modulates gastrointestinal functions



Hye-Eun Lee

生体機能触媒研究チーム  
Three dimensionally architected nanocatalyst inspired by deep-sea hydrothermal vent

Hye-Eun Lee

Biofunctional Catalyst Research Team  
Three dimensionally architected nanocatalyst inspired by deep-sea hydrothermal vent

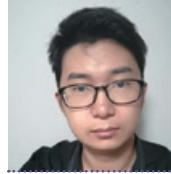


菊地 健吾

数理創造プログラム  
グラディエントフローを用いた場の理論の新しい解析手法の発展

Kengo Kikuchi

Interdisciplinary Mathematical Sciences Program  
New Approach to Non-perturbative Quantum Field Theory Inspired by Gradient Flow

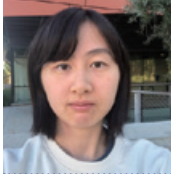


Yizhou Liu

強相関理論研究グループ  
Unraveling three-dimensional topological spin textures and their physical properties

Yizhou Liu

Strong Correlation Theory Research Group  
Unraveling three-dimensional topological spin textures and their physical properties

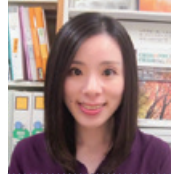


木邑 真理子

複極限自然現象理論研白眉研究チーム  
多波長同時観測・数値シミュレーション・現代統計で解き明かす、ブラックホール降着流の全体像

Mariko Kimura

Extreme natural phenomena RIKEN Hakubi Research Team  
Studies in Complete Picture of Accretion onto Black Holes through Multi-Wavelength Observations, Numerical Simulations, and Modern Statistics

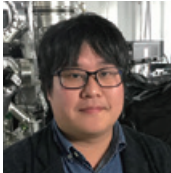


西口 彩里

環境代謝分析研究チーム  
高分子の高次構造多様性を踏まえた物性予測のための計測インフォマティクス

Ayari Nishiguchi

Environmental Metabolic Analysis Research Team  
Measurement Informatics for Predicting Physical Properties of Polymers Considering the Higher-Order Structures



木村 謙介

Kim表面界面科学研究室  
テラヘルツ・光STMで観る分子の帯電状態ダイナミクス

Kensuke Kimura

Surface and Interface Science Laboratory  
Observation of the dynamics of charged molecule by the development of ultrafast spectroscopy based on THz-photon STM



野入 亮人

量子機能システム研究グループ  
シリコン量子ドット中の電子スピンによる誤り耐性量子計算の基盤技術開発

Akito Noiri

Quantum Functional System Research Group  
Development of key technologies for fault-tolerant quantum computing using electron spins in silicon quantum dots



木下 佳昭

渡邊分子生理学研究室  
生体膜チップを用いたアーキアベンモーターの再構築

Yoshiaki Kinoshita

Molecular Physiology Laboratory  
Reconstitution of archaeal motor complex using biomembrane microsystems

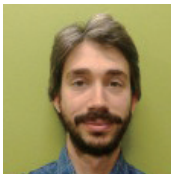


野村 高志

タンパク質構造疾患研究チーム  
アミロイド生成・脱凝集過程におけるタンパク質の動的構造解析

Takashi Nomura

Laboratory for Protein Conformation Diseases  
Capturing snapshots of dynamic protein structures in amyloid formation and disaggregation

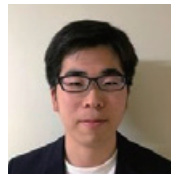


Eren Mehmet Kiral

数理科学チーム  
Spectral Analysis, Analytic Number Theory, and applications to Machine Learning.

Eren Mehmet Kiral

Mathematical Science Team  
Spectral Analysis, Analytic Number Theory, and applications to Machine Learning.



野津 翔太

坂井星・惑星形成研究室  
原始惑星系円盤・系外惑星大気の化学構造研究から探る、普遍的な星・惑星形成過程

Shota Notsu

Star and Planet Formation Laboratory  
Exploration of universal star and planet formation processes through the studies of chemical structures in protoplanetary disks and exoplanetary atmospheres



北谷 基治

計算物質科学研究チーム  
第一原理DFAの開発と非従来型超伝導への応用

Motoharu Kitatani

First-Principles Materials Science Research Team  
Development of AbinitioDFA and application to the unconventional superconductivity



大出 真央

杉田理論分子科学研究室  
分子動力学計算とクライオ電子顕微鏡の相補的融合による生体高分子の時空間イメージング

Mao Oide

Theoretical Molecular Science Laboratory  
Spatiotemporal imaging of biological macromolecules by complementary use of cryo-electron microscopy and molecular dynamics simulation



小塚 智沙代

免疫器官形成研究チーム  
卵子エピゲノムと胎盤を介した生活習慣病の母子間遺伝機構の解明

Chisayo Kozuka

Laboratory for Developmental Genetics  
Understanding the mechanism of intergenerational inheritance of metabolic disorders via the oocyte epigenome and placenta



Nur Alia Oktaviani

バイオ高分子研究チーム  
Elucidation of structure and role of protein-protein interactions inside spider gland; knowledge-based development of a new biomimetic approach for spinning of strong artificial spider silks

Nur Alia Oktaviani

Biomacromolecules Research Team  
Elucidation of structure and role of protein-protein interactions inside spider gland; knowledge-based development of a new biomimetic approach for spinning of strong artificial spider silks



久保田 雄也

XFEL研究開発部門 ビームライン研究開発グループ ビームライン開発チーム  
アト秒極X線パルスを用いた強相関物質の光励起ダイナミクスの研究

Yuya Kubota

XFEL Research and Development Division, Beam Line Research and Development Group, Beam Line Development Team  
Photo-induced dynamics in strongly correlated materials with attosecond hard X-ray pulses



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遺伝子制御回路研究チーム  
Evolutionary conservation of epigenomic interactions involved in human ageing across the vertebrate lineage

Juan Felipe Ortiz

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Evolutionary conservation of epigenomic interactions involved in human ageing across the vertebrate lineage





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 Continuous optical lattice clocks  
**Lőrinc Sárkány**  
 Space-Time Engineering Research Team  
 Continuous optical lattice clocks



**和田 有希**  
 極限自然現象理白眉研究チーム  
 地上と宇宙観測で解明する雷放電での電場加速と高エネルギー放射  
**Yuuki Wada**  
 Extreme natural phenomena RIKEN Hakubi Research Team  
 Studies of particle acceleration and high-energy emissions in lightning with on-ground and spacecraft observations



**佐々木 崇晴**  
 粘膜システム研究チーム  
 腸管の腫瘍発生制御における食物抗原の機能解析  
**Takaharu Sasaki**  
 Laboratory for Intestinal Ecosystem  
 Role of food antigen in the regulation of intestinal tumorigenesis



**Chao Wang**  
 創発機能高分子研究チーム  
 Surface-induced chirality in organic semiconductor thin films and its application to spin filter  
**Chao Wang**  
 Emergent Functional Polymers Research Team  
 Surface-induced chirality in organic semiconductor thin films and its application to spin filter



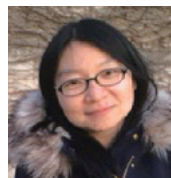
**七野 悠一**  
 岩崎RNAシステム生化学研究室  
 空間的制御による選択的翻訳機構  
**Yuichi Shichino**  
 RNA Systems Biochemistry Laboratory  
 Selective translation driven by spatial sequestration



**許 インイン**  
 汎用基盤技術研究グループ 数理統計学チーム  
 ランダム行列の有限サイズスケーリング則の解明及び巨大相関グラフのエッジ検定への応用  
**Yingying Xu**  
 Mathematical Statistics Team  
 Analysis of finite size scaling property of random matrix and its application to high dimensional dependence graph edge filtering certification



**住谷 陽輔**  
 杉田理論分子科学研究室  
 量子力学/分子力学(QM/MM)法を用いた多段階酵素反応の反応経路自動探索と速度論解析  
**Yosuke Sumiya**  
 Theoretical Molecular Science Laboratory  
 Automated reaction path search of multistep enzymatic reactions using quantum mechanics/molecular mechanics(QMMM) method and kinetic analysis



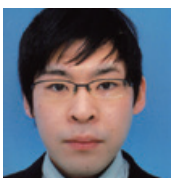
**Fangke Xu**  
 神経細胞多様性研究チーム  
 Measurement of Chromatin Architecture, and its Function in Regulating Neuronal Activity.  
**Fangke Xu**  
 Laboratory for Neurodiversity  
 Measurement of Chromatin Architecture, and its Function in Regulating Neuronal Activity.



**高 もも**  
 核分光研究室  
 重元素合成天体環境解明のための中性子過剰核の系統的核分光  
**Momo Taka**  
 Nuclear Spectroscopy Laboratory  
 Systematic nuclear spectroscopy of neutron-rich nuclei to clarify the astrophysical environment of heavy element synthesis



**Bing Xue**  
 アト秒科学研究チーム  
 Attosecond spectroscopy: ultrafast dynamics in atoms and molecules  
**Bing Xue**  
 Attosecond Science Research Team  
 Attosecond spectroscopy: ultrafast dynamics in atoms and molecules



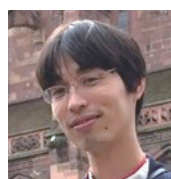
**武田 泰明**  
 NMR研究開発部門 NMR開発グループ 超高磁場磁石開発チーム  
 Bi系高温超伝導線材の超伝導接合を使った永久電流磁石技術体系の確立  
**Yasuaki Takeda**  
 Ultra-high-field NMR Magnet Development Team, NMR Development Group, NMR Science and Development Division  
 Establishment of a system of persistent current magnet technology through superconducting joints between Bi-based high-temperature superconducting tapes



**八木 創太**  
 高機能生体分子開発ユニット  
 古代RNA/DNAポリメラーゼの復元 ～「セントラルドグマ」の起源に迫る～  
**Sota Yagi**  
 Laboratory for Advanced Biomolecular Engineering  
 Resurrection of ancient RNA/DNA polymerase: Unraveling a mystery of origin of Central Dogma



**谷口 正樹**  
 数理創造プログラム  
 ゲージ理論における Floer 理論の一般化 (I), 及び精密化 (II) について  
**Masaki Taniguchi**  
 Interdisciplinary Mathematical Sciences Program (Tsuboi)  
 A generalization and refinement of Floer theory in gauge theory



**山下 慧**  
 形態形成シグナル研究チーム  
 気管陥入を駆動する三つのプロセスの協調機構の解明  
**Satoshi Yamashita**  
 Laboratory for Morphogenetic Signaling  
 Study of the coordination between three processes driving tracheal invagination



**露崎 弘毅**  
 バイオインフォマティクス研究開発チーム  
 結合テンソル分解による異種バイオデータの統合解析  
**Koki Tsuyuzaki**  
 Laboratory for Bioinformatics Research  
 Integrated analysis of heterogeneous biological data by coupled tensor factorization



**楊 正博**  
 細胞機能探索技術研究チーム  
 実践的分子シミュレーションで展開する医用工学技術の開発研究  
**Zhengbo Yang**  
 Laboratory for Cell Function Dynamics  
 Molecular Simulation-Based Approach to Protein Engineering for Future Medicine.



**内田 唯**  
 多階層生命動態研究チーム  
 数理モデルと細胞-分子動態の網羅的計測により、脊椎動物胚における形態の進化可能性を評価する  
**Yui Uchida**  
 Laboratory for Multiscale Biosystem Dynamics  
 Evaluating evolvability of vertebrate embryonic morphology by mathematical model and by comprehensive measurement of cell migration and signal molecule distribution.



**米田 浩基**  
 玉川高エネルギー宇宙物理研究室  
 MeVガンマ線宇宙物理学の開拓  
**Hiroki Yoneda**  
 High Energy Astrophysics Laboratory  
 Development of MeV gamma-ray astrophysics

写真  
Photo

氏名  
受入研究室  
研究課題  
Name  
Host Laboratory  
Research Topic



章 白浩

粘膜免疫研究チーム  
免疫システム、マイクロバイオータと脳における代謝連関

Baihao Zhang

Laboratory for Mucosal Immunity  
Metabolic communication in immune system, microbiota and brain



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Flexible/Stretchable Piezoelectret Electromechanical Transducers for Bi-Directional Human Interactions

Junwen Zhong

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Flexible/Stretchable Piezoelectret Electromechanical Transducers for Bi-Directional Human Interactions

大学院生リサーチ・アソシエイト  
Junior Research Associate (JRA)



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伊藤ナノ工医学研究室  
Efficient siRNA delivery and Suppression of Tumor Angiogenesis using peptide-lipid hybrid vesicle mediated by fusogenic pathway

Mohammed Abdelhamid Ramadan Abosheasha  
Nano Medical Engineering Laboratory

Efficient siRNA delivery and Suppression of Tumor Angiogenesis using peptide-lipid hybrid vesicle mediated by fusogenic pathway



藤澤 将広

不完全情報学習チーム  
不完全情報上での複雑な確率モデルにおける、柔軟で信頼性の高い近似推論法の開発

Masahiro Fujisawa

Imperfect Information Learning Team  
Development of a flexible and reliable approximate inference for complex probabilistic models on an imperfect information



藤原 昂平

メタボローム研究チーム  
脂肪酸代謝酵素Cyp4a12aの腎保護作用の解析

Kohei Fujiwara

Laboratory for Metabolomics  
Analysis of nephroprotective action of Cyp4a12a-derived metabolites



Fereshteh Azadeh

ケミカルゲノミクス研究グループ  
Development of High throughput System for Detecting Compound-protein Interaction by Tri-molecular Luminescence Complementation in Fission Yeast

Fereshteh Azadeh

Chemical Genomics Research Group  
Development of High throughput System for Detecting Compound-protein Interaction by Tri-molecular Luminescence Complementation in Fission Yeast



Nouran Ghanem

タンパク質機能・構造研究チーム  
Constructing characteristic chimeric  $\alpha$ -HL &  $\gamma$ -HL pores for bioengineering applications by the aid of cryo-electron microscopy structural analysis

Nouran Ghanem

Laboratory for Protein Functional and Structural Biology  
Constructing characteristic chimeric  $\alpha$ -HL &  $\gamma$ -HL pores for bioengineering applications by the aid of cryo-electron microscopy structural analysis



Federico Bolanos

視覚意思決定研究チーム  
Devise and perform behavioral experiments on mice while imaging neural activity (widefield and 2p). Develop the necessary analytical tools to model the dynamics of the neural activity and gain insight to the computations occurring in the experiment. Devise and perform optogenetic experiments to test the validity of the constructed model.

Federico Bolanos

Laboratory for Neural Circuits and Behavior  
Devise and perform behavioral experiments on mice while imaging neural activity (widefield and 2p). Develop the necessary analytical tools to model the dynamics of the neural activity and gain insight to the computations occurring in the experiment. Devise and perform optogenetic experiments to test the validity of the constructed model.



波多野 修也

数理科学チーム  
モレー・ローレンツ空間上のカルデロン・ジグムンド特異積分作用素の有界性

Naoya Hatano

Mathematical Science Team  
The boundedness of the Calderon-Zygmund singular integral operator on Morrey-Lorentz spaces



土肥 明

数理創造プログラム  
中性子星内部で発生する複雑な物理過程を考慮したX線バーストのモデル構築

Akira Dohi

Interdisciplinary Mathematical Sciences Program  
Numerical Modeling of X-ray Burst with Complicated Physical Processes Occurring inside the Neutron Stars



池川 優子

動的恒常性研究チーム  
アポトーシスとオートファジーの相互作用機構の解明

Yuko Ikegawa

Laboratory for Homeodynamics  
The mechanism of the interaction between apoptosis and autophagy

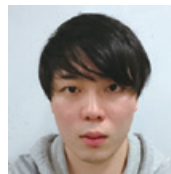


江戸 彩加

網膜再生医療研究開発プロジェクト  
ヒトiPS細胞由来網膜神経節細胞の免疫特性解析

Ayaka Edo

Laboratory for Retinal Regeneration  
Immunological properties of retinal ganglion cells derived from human induced pluripotent stem cells



井上 雅章

数理統計学チーム  
複雑ネットワーク成長機構による動的なグラフ埋め込みと分散表現

Masaaki Inoue

Mathematical Statistics Team  
Dynamic Graph Embedding and Distributed Representation via Growth Mechanisms of Complex Networks



藤家 拓大

先端光学素子開発チーム  
未知相互作用探索に向けた中性子干渉光学素子の開発

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Ultra-high Precision Optics Technology Team  
Development of Neutron Coherent Optics for Unknown Interaction Search



伊藤 功彦

細胞場構造研究チーム  
抗がん剤依存的に形成される核内アクチン構造の機能と電子顕微鏡による構造解析

Katsuhiko Ito

Laboratory for Cell Field Structure  
Functional and electron microscopy-based structural analysis of anti-tumor drug-dependent nuclear F-actin formation





**糸数 雄吏**

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歪制御分極ドープを用いた深紫外レーザーダイオードの研究

**Yuri Itokazu**

Quantum Optodevice Laboratory  
Deep ultraviolet laser diode with strain controlled polarization doping



**中川 諒**

ヒト疾患モデル研究チーム  
TP53変異を有する難治性急性白血病における治療抵抗性の病態解明  
および治療ターゲットの検索

**Ryo Nakagawa**

Laboratory for Human Disease Models  
Identification of drug resistance mechanisms and therapeutic target in refractory acute leukemia with TP53 mutation.



**柿原 知**

マイクロバイオーム研究チーム  
プロテオーム解析とメタゲノム解析を用いた稀少小児外科疾患や未熟児腸内環境の病態解明

**Tomo Kakahara**

Laboratory for Microbiome Sciences  
Multi-omics analysis of gut environment of rare pediatric surgical diseases and premature infants.



**大石 雄太**

分子配列比較解析チーム  
遠縁な生物種間で胎盤形成を可能にした共通のゲノム要因に迫る

**Yuta Ohishi**

Laboratory for Phyloinformatics  
Exploring common genomic factors that enable placenta formation between phylogenetically distant species



**笠置 歩**

齋藤高エネルギー原子核研究室  
高速顕微鏡と機械学習を用いた原子核乾板によるダブルハイパー核の研究

**Ayumi Kasagi**

High Energy Nuclear Physics Laboratory  
Study of double hypernuclei by a photographic detector, a high-speed scanning, and machine learning



**岡庭 有明**

細胞システム動態予測研究チーム  
機械学習を用いた生細胞遺伝子発現解析

**Tomoaki Okaniwa**

Laboratory for Prediction of Cell Systems Dynamics  
Gene expression analysis of a living cell using machine learning



**川上 翔汰**

数理科学チーム  
非線形分散型偏微分方程式の解の爆発現象の詳細

**Shota Kawakami**

Mathematical Science Team  
Details of the blow-up solutions for nonlinear dispersive equations



**尾上 詩織**

発生動態研究チーム  
線虫の三次元空間における行動制御システムの解明

**Shiori Onoue**

Laboratory for Developmental Dynamics  
Elucidate the control system in 3D behavior of *C.elegans*



**久保田 健太郎**

自然免疫システム研究チーム  
子宮内膜症の発症・増悪におけるILC2の役割解明

**Kentaro Kubota**

Laboratory for Innate Immune Systems  
Investigation of ILC2 in the initiation and progression of endometriosis



**榊原 光**

数理創造プログラム  
汎関数線り込み群を用いた原子核構造の解明

**Hikaru Sakakibara**

Interdisciplinary Mathematical Sciences Program  
Study of nuclear structure with functional renormalization group

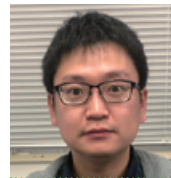


**黒羽 小羊子**

メタボローム研究チーム  
網膜内DHA含有リン脂質の生理学的意義の解明

**Sayoko Kuroha**

Laboratory for Metabolomics  
Elucidation of physiological significance of DHA-containing phospholipids in the retina



**関根 悠哉**

基盤技術開発研究チーム  
腎がんの個別化医療促進にむけた大規模ゲノム解析

**Yuya Sekine**

Laboratory for Genotyping Development  
Large-scale genome analysis for promoting personalized medicine of renal cell carcinoma.



**Minhui Lee**

Kim表面界面科学研究室  
STM and DFT studies of the catalytic reaction induced by plasmon

**Minhui Lee**

Surface and Interface Science Laboratory  
STM and DFT studies of the catalytic reaction induced by plasmon



**関屋 涼平**

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η'中間子原子核探索実験によるQCD真空の解明

**Ryohei Sekiya**

Meson Science Laboratory  
Spectroscopy of Eta'-Mesic Nuclei for Studying QCD Vacuum.



**宮崎 拓也**

Kim表面界面科学研究室  
コンホメーション変化に伴う双極子反転を利用した分子誘電特性の制御

**Takuya Miyazaki**

Surface and Interface Science Laboratory  
Control of molecular dielectric response based on dipole-inversion with molecular conformational change



**Zhengzheng Shi**

粘膜システム研究チーム  
Unraveling the Molecular Effects of the Kampo Medicine Daikenchuto on the Maintenance of Intestinal Homeostasis in a Murine Colitis Model

**Zhengzheng Shi**

Laboratory for Intestinal Ecosystem  
Unraveling the Molecular Effects of the Kampo Medicine Daikenchuto on the Maintenance of Intestinal Homeostasis in a Murine Colitis Model

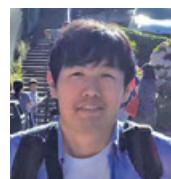


**内藤 早紀**

動的恒常性研究チーム  
老化に伴う腸幹細胞の恒常性を制御する因子の遺伝学的解析

**Saki Naito**

Laboratory for Homeodynamics  
Genetic screening to identify factors that regulate homeostasis of intestinal stem cells during aging in *Drosophila*



**四方 大樹**

遺伝工学基盤技術室  
ヒストンH4メチル化の発生生物学的意義の解明

**Daiki Shikata**

Bioresource Engineering Division  
Analysis on significance of developmental biology of histone H4 methylation

写真  
Photo

氏名  
受入研究室  
研究課題  
Name  
Host Laboratory  
Research Topic



### 嶋田 宗将

複雑現象統一解法研究チーム  
高レイノルズ数流れにおける流体-構造連成現象に対する完全オイラー型統一連成解法の構築と工学的・産業的課題への適用

#### Tokimasa Shimada

Complex Phenomena Unified Simulation Research Team  
Construction of Eulerian unified formulation for fluid-structure interaction problems under high Reynolds number flow conditions and its application to engineering and industrial problems



### 下條 優

無細胞タンパク質合成研究チーム  
試験管内再構成系を用いたリボソーム小サブユニットの生成過程の解明

#### Masaru Shimojo

Laboratory for Cell-Free Protein Synthesis  
Elucidating biogenesis process of ribosomal small subunit by in vitro reconstitution system



### Qiwen Sun

データ同化研究チーム  
Soft boundary local particle filters in high-dimensional hidden Markov models

#### Qiwen Sun

Data Assimilation Research Team  
Soft boundary local particle filters in high-dimensional hidden Markov models



### 竹野 思温

データ駆動型生物医学科学チーム  
Multi-fidelity探索問題のための情報論的能動学習とその材料分野への応用

#### Shion Takeno

Data-Driven Biomedical Science Team  
Information-theoretic active-learning for multi-fidelity exploration problems and its application to materials science



### 竹内 祐貴

田中メタマテリアル研究室  
メタマテリアル構造を利用した近赤外線でのホットキャリア生成効率の向上

#### Yuki Takeuchi

Metamaterials Laboratory  
Enhancement of hot carrier generation in near-infrared region with metamaterial



### 田中 優希

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部位特異的DNA脱メチル化スクリーニングによる新規骨髄異形成症候群治療ターゲットの同定

#### Yuki Tanaka

Laboratory for Cellular Function Conversion Technology  
Identification of new treatment target of myelodysplastic syndrome (MDS) using site-specific DNA demethylation screening

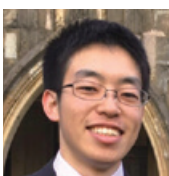


### 天間 雄祐

多階層精神疾患研究チーム  
多階層イメージングを実現するトランスジェニックマウスの開発と精神疾患研究への応用

#### Yusuke Temma

Laboratory for Multi-scale Biological Psychiatry  
Development of transgenic mice for multiscale imaging and application to research for psychiatric disorders



### 手嶋 毅志

不完全情報学習チーム  
データ生成過程の構造的情報に基づく少数データ機械学習手法に関する研究

#### Takeshi Teshima

Imperfect Information Learning Team  
Research on few-data machine learning based on the structural information of data generation processes



### 富田 良平

非対称細胞分裂研究チーム  
ヒトiPS細胞由来大脳皮質オルガノイドへ放射状繊維方向に関しての正常な位置情報を与える

#### Ryohei Tomita

Laboratory for Cell Asymmetry  
Giving normal location information regarding a radial fiber direction to cerebral organoids derived from human iPS cells



### 豊島 進

組織動態研究チーム  
表皮バリア減弱が惹起する痒みの感覚神経活性化メカニズムの解析

#### Susumu Toshima

Laboratory for Tissue Dynamics  
Mechanistic analysis of itch-inducing sensory nerve activation in barrier-impaired skin



### Techit Tritrakarn

次世代NMR装置開発チーム  
材料開発に向けた超高感度次世代固体NMRプローブの開発

#### Techit Tritrakarn

Advanced NMR Technology Development Team  
Development of ultra-sensitive next-generation solid-state NMR probe for material development



### 堤 真人

多階層生命動態研究チーム  
機械学習を用いた生物形態の定量化とその応用

#### Masato Tsutsumi

Laboratory for Multiscale Biosystem Dynamics  
Characterization of biological morphology by using machine learning



### 宇野 亘

ヒト器管形成研究チーム  
発生プロセスに準拠したヒト前立腺オルガノイドの誘導

#### Wataru Uno

Laboratory for Human Organogenesis  
Induction of human prostate organoid based on developmental process



### 鵜崎 真妃

代謝システム研究チーム  
胚発生から種子発芽までのニチニチソウ二次代謝変動とその制御機構の解析

#### Mai Uzaki

Metabolic Systems Research Team  
Analysis of changes in secondary metabolisms and their regulatory mechanisms from embryogenesis to seed germination of *Catharanthus roseus*



### Duy Nguyen Le Vo

データ駆動型生物医学科学チーム  
Novel Statistical Approach for Data-Driven Artificial Intelligence (AI), with Applications to the Field of Trajectory Mining

#### Duy Nguyen Le Vo

Data-Driven Biomedical Science Team  
Novel Statistical Approach for Data-Driven Artificial Intelligence (AI), with Applications to the Field of Trajectory Mining



### 渡邊 南

数理科学チーム  
非線形シュレディンガー方程式の解の大域挙動の解析

#### Minami Watanabe

Mathematical Science Team  
Global dynamics of nonlinear Schroedinger equation

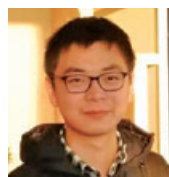


### 和宇慶 ひかり

R1・電子散乱装置開発チーム  
世界初の電子弾性散乱による不安定核の電荷密度分布の決定

#### Hikari Wauke

SCRIT Team  
The world's first determination of charge density distribution of unstable nuclei by electron elastic scattering



### Wenxuan Xu

先進機能触媒研究グループ  
C-H Bond Activation and Transformation by Organo Rare Earth Catalysts

#### Wenxuan Xu

Advanced Catalysis Research Group  
C-H Bond Activation and Transformation by Organo Rare Earth Catalysts





### Jingyi Xue

骨関節疾患研究チーム  
Identification of the causal genes for sclerosing bone disorders and clarification of their pathomechanism.

### Jingyi Xue

Laboratory for Bone and Joint Diseases  
Identification of the causal genes for sclerosing bone disorders and clarification of their pathomechanism.



### 吉田 美桜

メタボローム研究チーム  
オメガ3脂肪酸代謝経路の皮膚恒常性維持における役割の解明

### Mio Yoshida

Laboratory for Metabolomics  
Elucidation of the role of omega-3 fatty acid metabolism in skin homeostasis



### 山浦 港生

合成生物学研究チーム  
睡眠およびリン酸化からみるアルツハイマー病発症メカニズムの解明

### Kosei Yamaura

Laboratory for Synthetic Biology  
Revealing the onset of Alzheimer's disease through sleep and phosphorylation

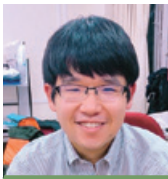


### 吉岡 輝昭

超伝導量子シミュレーション研究チーム  
超伝導量子ビットの量子状態によらない高速初期化プロセスの研究

### Teruaki Yoshioka

Superconducting Quantum Simulation Research Team  
Unconditional fast reset process for superconducting qubit



### 吉田 健祐

数理脳科学研究チーム  
徐波発火パターンによるシナプス可塑性および学習の制御

### Kensuke Yoshida

Laboratory for Neural Computation and Adaptation  
Synaptic plasticity and learning regulated by the slow-wave-sleep firing pattern



### Xianping Zhang

画像情報処理研究チーム  
Multiscale modeling of ultrasonic-controlled drug delivery system

### Xianping Zhang

Image Processing Research Team  
Multiscale modeling of ultrasonic-controlled drug delivery system

## 国際プログラム・アソシエイト International Program Associate (IPA)



### Xintong Liu

バイオプローブ応用研究ユニット  
ホルモン受容体(HR)シグナル伝達経路依存的にAQP5を活性化させる小分子化合物のスクリーニング

### Xintong Liu

Bioprobe Application Research Unit  
Screening of small molecule compounds that activate AQP5 in a hormone receptor (HR) signaling pathway dependent manner.

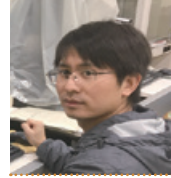


### Antonios Apostolopoulos

岩崎RNAシステム生化学研究室  
細胞老化と細胞休止における翻訳制御

### Antonios Apostolopoulos

RNA Systems Biochemistry Laboratory  
Senescence vs Quiescence: Unveiling protein translation



### Enhui Lu

大森素形材工学研究室  
マシンビジョンに基づいた超精密加工面粗さ測定

### Enhui Lu

Materials Fabrication Laboratory  
Ultra-precision machining surface roughness measurement based on machine vision



### Laura Bracun

タンパク質機能・構造研究チーム  
クライオ電顕による生体エネルギー変換に関わる超分子複合体の構造解析

### Laura Bracun

Laboratory for Protein Functional and Structural Biology  
Macromolecular Structure of Bioenergetic Supercomplexes using Cryo-Electron Microscopy



### Benard Mulilo

放射線研究室  
重心衝突エネルギー200GeVの単横偏極陽子+原子核衝突における超前方中性子生成非対称性の横運動量依存性の研究

### Benard Mulilo

Radiation Laboratory  
Transverse momentum dependence of the transverse single-spin asymmetry for the very forward neutron production in p + A collisions at collision energy of 200 GeV



### Muhammad Hanif Bin Che Lah

中間子科学研究室  
脳のDNA中の電子伝導の研究

### Muhammad Hanif Bin Che Lah

Meson Science Laboratory  
Electron transport study in DNA of brain cells



### Ahmed Emad Abdelmoneam Ali Elrefaey

創発生体工学材料研究チーム  
単層カーボンナノチューブの分散、配向を誘起する超分子材料の開発

### Ahmed Emad Abdelmoneam Ali Elrefaey

Emergent Bioengineering Materials Research Team  
Development of a supramolecular material for dispersion and alignment of single-walled carbon nanotubes (SWCNTs)



### Enqiang Liu

齋藤高エネルギー原子核研究室  
ドイツGSI/FAIRと中国HIAFにおけるシングルおよびダブルストラングハイパー核実験研究のための新技術の開発

### Enqiang Liu

High Energy Nuclear Physics Laboratory  
Development of the novel techniques for hypernuclear experiments to study exotic single-L and double-strange hypernuclei at GSI/FAIR in Germany and at HIAF in China



### Alexandra-Ionela Stefanescu

スピン・アイソスピン研究室  
核の天体物理学のための間接測定：中間エネルギーでの陽子分解反応

### Alexandra-Ionela Stefanescu

Spin isospin Laboratory  
Indirect measurements for nuclear astrophysics: proton breakup reaction at intermediate energies

写真  
Photo

氏名  
受入研究室  
研究課題  
Name  
Host Laboratory  
Research Topic



**Nayan Vinod Suryawanshi**  
タンパク質構造疾患研究チーム  
アルツハイマー病モデルマウスにおけるmRNA翻訳異常の解明  
**Nayan Vinod Suryawanshi**  
Laboratory for Protein Conformation Diseases  
Understanding dysregulated mRNA translation in Alzheimer's disease model mice.



**Duligengaowa Wuergenzhen**  
細胞外環境研究チーム  
発生における細胞外マトリックスダイナミクス  
**Duligengaowa Wuergenzhen**  
Laboratory for Tissue Microenvironment  
Extracellular matrix dynamics in development



**Abdul Muneem**  
齋藤高エネルギー原子核研究室  
GSIにおける重イオンビーム、WASA検出器とフラグメントセパレーター  
FRSを用いた新しい技術による少数系ハイパー核の研究  
**Abdul Muneem**  
High Energy Nuclear Physics Laboratory  
Studies of light hypernuclei by using the novel technique with heavy ion beams, the WASA detector and the fragment separator FRS at GSI



**Ruting Zhang**  
大森素形材工学研究室  
単結晶SiCチップの超精密CMPの研究  
**Ruting Zhang**  
Materials Fabrication Laboratory  
Study on The Ultra-precision Chemical Mechanical Polishing of Single Crystal SiC Chip



## 2019年度理研サマースクール FY2019 RIKEN Summer School

2019年度の理研サマースクールは、2019年10月7日～8日に千葉県木更津市でJRA・IPA計111人が参加し開催されました。前田瑞夫IPA審査部会長や本林透名誉研究員をはじめ、CEMS・但馬敬介チームリーダー、CPR・川口喬吾理研白眉チームリーダー、IMS・村川泰裕チームリーダー、IMS・WU Yibo上級研究員に参加いただき、お話を伺う機会を得ました。また、基礎科学特別研究員もポスター賞の選考や全体の運営をサポートするボランティアとして参加しました。Icebreakerやポスターセッションは、普段交流できない異分野の研究室や離れたキャンパスの学生同士が交流を深める貴重な機会となりました。なお、2019年度よりBest Poster賞をMost Popular Poster賞に変更し、新たに参加者同士の投票による特別賞 (Most Inclusive PosterおよびBest Poster Design) を創設しました。Most Popular Poster賞は前田バイオ工学研究室のSurachada Chuaychobさんが受賞しました。

FY2019 RIKEN Summer School was held on October 7 to 8, 2019 at Kisarazu, Chiba. 111 JRA and IPA students participated in this event and enjoyed talks by Drs. Keisuke Tajima, Kyogo Kawaguchi, Yasuhiro Murakawa and Yobo Wu, as well as introducing themselves in the Icebreaker session and presenting their research during the poster sessions. Dr. Mizuo Maeda, Head of IPA Screening Committee also joined the event, and Dr. Tohru Motobayashi acted as the Head of Poster Screening Committee. All in all, the participants eagerly interacted and seemed to enjoy meeting their peers from different campuses and research areas. Volunteers from SPDR program helped as judges for the poster prizes and supported the summer school office. Starting this year, the Best Poster Award was changed to Most Popular Poster and two new Special Prizes, Most Inclusive Poster and Best Poster Design, was created. The Most Popular Poster Prize went to Ms. Surachada Chuaychob of the Bioengineering Laboratory.



集合写真  
Group photo



(左)Icebreakerの様子 (右)ポスター発表の様子  
(Left) Icebreaker (Right) Poster session



ポスター賞受賞者：(後段 左から)柳瀬さん、ゾートーバさん、アワシさん、シさん、フさん、佐々木さん、前田 瑞夫 主任研究員、本林 透 名誉研究員(審査委員長)、待田さん、石田さん (前段 左から)尾藤さん、山口さん、チュアイチョブさん、宇佐美さん、ピナルシーさん

Poster prize winners:(Back row from the left) Mr. Yanase, Ms. Zotova, Mr. Awasthi, Mr. Shi, Ms. Fu, Mr. Sasaki, Dr. Mizuo Maeda (Chief Scientist), Dr. Tohru Motobayashi (Honorary Scientist, Head of Poster Screening Committee), Mr. Machida, Mr. Ishida (Front row from left) Mr. Ofuji, Ms. Yamaguchi, Ms. Chuaychob, Ms. Usami, Ms. Winarsih

## ポスター賞受賞者

### Most Popular Poster賞

チュアイチョブ スラチャダ (化学)

国際プログラム・アソシエイト 前田バイオ工学研究室

### 生物科学賞

待田 大輝

大学院生リサーチ・アソシエイト 細胞外環境研究チーム

山口 智子

大学院生リサーチ・アソシエイト 超分子システム動態研究チーム

宇佐美 知沙

大学院生リサーチ・アソシエイト 体軸動態研究チーム

### 工学賞

フ ギエン

国際プログラム・アソシエイト 計算工学応用開発ユニット

シ リョウ

国際プログラム・アソシエイト 計算工学応用開発ユニット

### 医科学賞

尾藤 和浩

大学院生リサーチ・アソシエイト ヒト器官形成研究チーム

石田 聖朗

大学院生リサーチ・アソシエイト

網膜再生医療研究開発プロジェクト

アワシ ジャナク ラジ

国際プログラム・アソシエイト 精神生物学研究チーム

### 数理科学賞

柳瀬 友朗

大学院生リサーチ・アソシエイト 複合系気候科学研究チーム

### 物理賞

ピナルシー スチー

国際プログラム・アソシエイト 中間子科学研究室

佐々木 亮

大学院生リサーチ・アソシエイト 玉川高エネルギー宇宙物理研究室

ゾートーバ ユリア

国際プログラム・アソシエイト

超伝導量子シミュレーション研究チーム

## Poster prize winners

### Most Popular Poster Prize

Surachada Chuaychob (Chemistry)

International Program Associate  
Bioengineering Laboratory

### Biology Prize

Hiroki Machida

Junior Research Associate  
Laboratory for Tissue Microenvironment

Tomoko Yamaguchi

Junior Research Associate  
Laboratory for Supramolecular System Dynamics Research

Chisa Usami

Junior Research Associate  
Laboratory for Axial Pattern Dynamics

### Engineering Prize

Xiyan Fu

International Program Associate  
Computational Engineering Applications Unit

Liang Shi

International Program Associate  
Computational Engineering Applications Unit

### Medical Science Prize

Kazuhiro Ofuji

Junior Research Associate  
Laboratory for Human Organogenesis

Masaaki Ishida

Junior Research Associate  
Laboratory for Retinal Regeneration

Janak Raj Awasthi

International Program Associate  
Laboratory for Mental Biology

### Mathematical Sciences Prize

Tomoro Yanase

Junior Research Associate  
Computational Climate Science Research Team

### Physics Prize

Suci Winarsih

International Program Associate  
Meson Science Laboratory

Ryo Sasaki

Junior Research Associate  
High Energy Astrophysics Laboratory

Iuliia Zotova

International Program Associate  
Superconducting Quantum Simulation Research Team

## 記事の募集

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本紙では、基礎特研・JRA・IPA の在籍者、その OB・OG、アドバイザーの方々の投稿を募集しています。研究内容の紹介、旅行の思い出、ご意見の他、写真やカットなどお気軽にお寄せください。

## 編集後記

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若手研 News30 号をお読みいただきありがとうございます。

この若手研 NEWS は年一度発行の機関誌です。若手研究者育成制度で理研に在籍中の方々、OB/OG に向けて、活動報告と新しいメンバーを紹介しています。

皆様、理研での研究生生活はいかがでしょう。もしお困りの事がありましたら、いつでも人事部研究人事課までご相談下さい。当課は理研和光キャンパス内、情報基盤棟 3F です。いつでも気軽にお立ち寄りください。

今後も皆様の理研での滞在がより充実したものになるよう努めていきますので、どうぞよろしくお願い申し上げます。

## Article Wanted

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We are asking for submissions for "Young Researcher News". Any SPDR, JRA, IPA, the alumni and the advisors are welcome to submit your research intro, travel sketch, opinions and pictures.

## From the editors

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Thank you for reading the *Young Researcher News* No.30. This annual magazine introduces the new members participating in RIKEN's programs for junior scientists and the research activities conducted by the members, and is distributed to all the members and alumni of the programs.

For fellows in the programs: How is your life at RIKEN? Is everything going well? If you have concerns or problems, feel free to contact us at the Junior Scientist Program Section (e-mail: wakate@riken.jp). Our office is located on the 3rd floor of the Information Science Building on the Wako campus. Please come to visit us when you have time.

We are here to help make your life at RIKEN fruitful and enjoyable and look forward to working with you.

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