

BULLETIN DU GROUPEMENT

d'informations mutuelles



G r o u p e m e n t
AMPERE

SE CONNAÎTRE, S'ENTENDRE, S'ENTRAIDER

April to September 2020

No. 279/280

Office: ETH Zürich, Laboratory of Physical Chemistry
8093 Zürich, Switzerland, www.ampere-society.org

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If you would like to become a member of the AMPERE Society, you can register online under: www.ampere-society.org

Editorial

Dear members of the Groupement AMPERE,

a lot has happened in the last six months but unfortunately not in the Groupement AMPERE. All planned conferences had to be cancelled including the EUROMAR in Bilbao and many meetings of the subdivisions. There will be a virtual EUROMAR in December (see page 6 for details) but on a much smaller scale than we usually have. While conferences have been cancelled all over the world, new forms of scientific exchange have evolved. Seminar series to various topics (solid-state NMR and DNP, EPR, biological magnetic resonance, material science and polymers, educational topics, and many more) have been organized by small groups of people and are very successful. But, as in teaching over zoom as many of us have done this year, I feel something is missing in these online meetings. I believe that teaching and research rely inherently on personal social contacts that are difficult to transport through online tools. Informal discussion, coffee breaks, meeting new people by chance is much easier in real life. At ETH, the new semester has just started and a lot more students attend the on-site classes than we expected even if they are streamed online. I believe that this shows that personal interactions are missing in the online classes and seminars. But of course, online forms offer other advantages and possibilities that are not possible in classical lectures and meetings.

Nobody can really predict the future and we do not know how the situation will develop until the next summer. At a recent meeting of the AMPERE Committee (see page 21), we discussed what different subdivisions of AMPERE plan. The range of plans was very broad from in-person meeting to hybrid meetings (online and in person combined) to full online meetings which also reflects the breadth of opinions about the current situation in our societies. You will hear from our efforts to get meetings back up again in the coming months.

I hope all of you had a good start after the vacation time in summer. Many of you will soon start teaching again and I wish you a good teaching experience no matter whether it will be online or on-site.

Best regards,



Matthias Ernst
Secretary General, Groupement AMPERE

Portrait: Prof. Isabella Felli

- why magnetic resonance and why NMR and MRI?

A book about Fourier Transformation by Ron Bracewell, who came to visit us in Florence when I was a kid, and some chats with my dad made me curious about this topic. Then, as a first year student in the University of Florence, during chemistry lectures, I heard Prof. Bertini speaking about FT and NMR. So I got even more curious!!

After this it was easy to take decisions on which way to go!!

- what is your favorite frequency?

My favorite frequency is that of ^{13}C : it kept me very busy in the last 15 years and revealed a lot of interesting information on different kinds of challenging proteins, in particular intrinsically disordered ones (IDPs)!

- what do you still not understand?

... so many things!! It's fun to realize this while teaching. So many things out there that still need to be understood, so much one can learn even from the questions of the students if one has the humility to admit "I don't know, I will think about it and come back on this"!!

- luckiest experiment you have ever done.

The determination of the 3D structure of a paramagnetic protein. Prof. Bertini proposed it to me as the project for my undergraduate thesis. It was the first time in our lab, there were no structures yet of paramagnetic proteins. So quite a challenge. I was so happy that I could finally do research. We started with large plots of NOESY spectra on the walls of the old chapel where the NMR lab was... but with all the help of the lab, and not only, we managed. An adventure that I enjoyed a lot!!

- what was the worst mistake you have made during your lab time?

Keeping the sample in the NMR instrument while fixing/maintenance was being carried out! In that case it was the temperature control unit that needed to be fixed. "Don't worry, you can keep the sample in the spectrometer", I was told. Then I noticed that the shimming was more difficult, it was changing in time... but when I took the sample out it was too late: the precious protein sample looked like fried egg!

- most memorable conference story.

My first Chianti workshops! I enjoyed so much meeting the authors of the tough papers I was reading. What a surprise, they could even play soccer, sing and dance!!

- with whom (historical person) would you like to meet?

In principle there are many historical persons that I would like to meet, but not a special one. Instead, from the history of cinema, in particular from the first three movies of Star Wars, there is a very special character that I would like to meet: Yoda.

- when do you get your best ideas?

In the early morning, when I allow myself some time to relax and let thoughts free!!

- if you had just one month time for travelling - where would you go to?

I would like to explore different beaches and go windsurfing, even better if traveling on a sailing boat.

- your idea of happiness.

Enjoying simple things: a joke with friends, a day with my family, eating a good ice cream, seeing my plants blooming in the terrace, looking at the sea.



Position: Professor at the University of Florence

Awards: Alexander von Humboldt fellow, Marie Curie fellow, award by Federchimica for my MS thesis, award by the Italian Chemical Society for my PhD work.

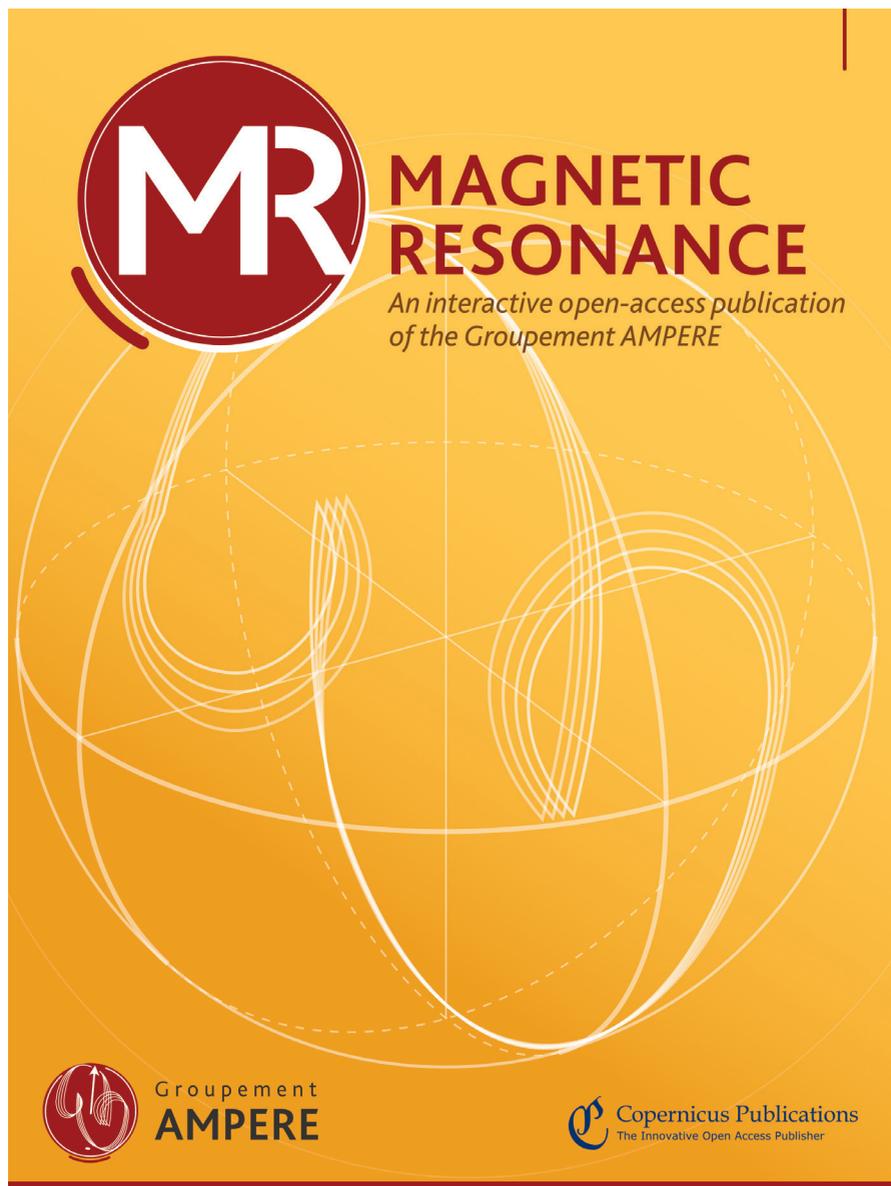
Homepage: <https://www.cerm.unifi.it/about-us/people/isabella-felli>

Education:

BS+MS and PhD, University of Florence (supervisor I. Bertini); during this period I spent several months in Homburg, Germany to focus on ESEEM (with S. Dikanov and J. Huttermann) and at the NHMFL in Florida to focus on cross-correlated relaxation (with G. Bodenhausen and H. Desvaux).

Post-Doc at the University of Frankfurt thanks to an Alexander von Humboldt grant (with C. Griesinger and H. Schwalbe).

Interests: designing logos, playing (now watching...) basketball, dancing, traveling



**A magnetic-resonance journal
for the community, not for profit**



The Groupement AMPERE has launched a quality not-for-profit open-access journal called „Magnetic Resonance - An interactive open-access publication of the Groupement AMPERE“ which is now accepting manuscripts in all fields of magnetic resonance - in liquids, solids and gases, in vitro and in vivo, including nuclear magnetic resonance (NMR) spectroscopy, electron paramagnetic resonance (EPR) spectroscopy, magnetic resonance imaging (MRI), magnetic resonance spectroscopy (MRS), nuclear quadrupole resonance (NQR), various hyperpolarization methods in liquids and solids such as dynamic nuclear polarization, para-hydrogen induced polarization, optically detected magnetic resonance, as well as innovative advances in techniques supporting magnetic resonance experiments that may range from sample preparation to computational techniques. Advanced and innovative applications of magnetic resonance are also within the scope of the journal.

The new journal is owned by the Groupement AMPERE and is published by Copernicus Publications (Göttingen, Germany). More than 50 colleagues from all branches of magnetic resonance have joined the editorial board to support the Groupement AMPERE and the executive editors Geoffrey Bodenhausen (Paris, France), Matthias Ernst (Zürich, Switzerland), Daniella Goldfarb (Weizmann Institute, Israel), Mehdi Mobli (Brisbane, Australia), Gottfried Otting (Canberra, Australia), Peter C. M. van Zijl (Baltimore, USA) in launching the new journal. Magnetic Resonance is an open-access journal with modest author page charges of 75-80 € per printed page. It implements an interactive and transparent two-stage peer-review process.

We invite all researchers working in a field related to topics covered by „Magnetic Resonance - An interactive open-access publication of the Groupement AMPERE“ to submit manuscripts at <https://www.magnetic-resonance-ampere.net>.



EUROMAR 2020 CALL FOR ABSTRACTS

Based on the current data and the escalation in the number of people affected by COVID-19, EUROMAR 2020 Organising Committee has decided to cancel the meeting. Instead, we will organize an **on-line meeting** that will include the award ceremony and selected flash presentations. In the near future we will send more information and the link to the meeting.

At this time, we encourage early stage researchers and post-doctoral fellows working in all aspects of Magnetic Resonance to submit their abstracts for consideration to the on-line meeting. All submitted abstracts will be included in a booklet (PDF format) that will be made public. The EUROMAR 2020 Scientific Committee will evaluate the abstracts and select the flash presentations for the on-line meeting.

In order to facilitate the evaluation process, the presenting author must classify the abstract within one of the following categories:

1. Biomolecular NMR.	2. Computation.
3. EPR /ESR.	4. Hyperpolarization.
5. Instrumentation /hardware.	6. In cell NMR.
7. Materials.	8. Metabolomics.
9. MRI / In vivo.	10. Small molecules & drug design.
11. Solid state NMR – methods.	12. Solid state NMR – applications.
13. Solution NMR -methods.	

Please submit your abstract using [the template](#) you can find here.
before October 30, 2020 to Beatriz González, e-mail: bvalle@cicbiogune.es

Looking forward meeting you all at the EUROMAR 2020 on-line experience,

Oscar Millet
on behalf of the Organizing and Scientific Committees of EUROMAR 2020

On-line Meeting Schedule:

	Dec 7 2020	Dec 8 2020
UTC / GMT		
12:00	Introduction	Introduction
12:05	Richard Ernst Prize Lecture	Raymond Andrew Prize lecture
12:35	Q&A	Q&A
12:45	6 poster presentations	6 poster presentations
13:50	Q&A (sessions)	Q&A (sessions)
14:00	AMPERE Prize for Young Investigators	Varian Young Investigator Award
14:15	5 poster presentations	5 poster presentations
15:15	Q&A (sessions)	Q&A (sessions)
15:30	e.o.m	e.o.m

Report:
**6th International School for Young Scientists
,Magnetic Resonance and Magnetic Phenomena
in Chemical and Biological Physics'**



The 6th International School for Young Scientists "Magnetic Resonance and Magnetic Phenomena in Chemical and Biological Physics" was organized under the auspices of the "Hyperpolarization in Magnetic Resonance" subdivision of the Groupement AMPERE, 2-10 September 2020.

Venue and scope:

The School was supposed to be held in Roshchino (St. Petersburg region). Unfortunately, the meeting with physical presence had to be cancelled because of the COVID-19 pandemic, like many other activities this year. Nonetheless, the organizing committee has decided to hold the meeting anyway, in an online format. This decision has advantages (the meeting become inexpensive and the participants are not bound by travelling, visas and borders between countries) but also brings about some challenges and problems. The main difficulties are: communication problems introduced by the online format, wide span of the time zones in different countries (in a way replacing problems associated with jetlag) and limited duration of scientific sessions (it is unrealistic to keep attention of students for longer than 4 hours per day). For these reasons, the School was split into two parts: 6 introductory lectures on 2-4 September were followed by the main school on September 6-10.

Teaching program:

The teaching program comprised 15 lectures (6 introductory lectures + 9 lectures on various NMR and EPR subjects) followed by discussions and a tutorial. To have the students enrolled, the organizers have decided to organize 6 virtual poster sessions. The teachers of the School were Danila Barskiy (Berkeley), Christian Griesinger (Göttingen), Konstantin Ivanov (Novosibirsk), Leonid Kulik (Novosibirsk), Olivier Lafon (Lille), P. K. Madhu (Hyderabad), Kiminori Maeda (Saitama), Valentin Novikov (Moscow), Kev Salikhov (Kazan), Takuya Segawa (Zurich), Hans-Martin Vieth (Berlin) and Maxim Yulikov (Zurich).

Contributions from students:

The students had a chance to make a self-presentation (introducing themselves and briefly explaining their area of research), in order to ease communication and compensate partly for the inability to meet in person. There have been 81 students from 16 countries; 42 students have presented their work during the virtual poster sessions. 6 poster prizes have been given by the organizers to the following students:

Arnau Bertran (Oxford, UK), Giuseppina Magri (Cardiff, UK), Natalya Sannikova (Novosibirsk, Russia), Fabio Santanni (Florence), Taichi Sato (Saitama, Japan) and Agnes Thorarinsdottir (Cambridge, USA). A special prize of the organizing committee has been given to Georges Menzildjian (Lyon, France) for his scientific contribution and active work during the School.

Sponsorship:

The organizing committee has raised funding from several sponsors, such as Groupement AMPERE, ISMAR, Humboldt Foundation, Russian Science Foundation and Wiley. However, the meeting has turned out to be very inexpensive and funding was not spent: the only costs were prizes to students (Wiley books, 7 prizes in total). Nonetheless, the organizers are grateful to all organizations, which have agreed to provide financial support.

Committees:

The school has been organized by the International Tomography Center (Novosibirsk Russia) and by the Institute of Chemical Kinetics and Combustion (Novosibirsk, Russia). Conference chairs were Prof. Konstantin Ivanov and Prof. Leonid Kulik; Dr. Dmitry Stass served as a scientific secretary. Together with Dr. Maxim Yulikov (ETH Zurich) and Prof. P. K. Madhu (TIFR Hyderabad) this team was in charge of the teaching program. The School has thus served the goal of keeping active international scientific events in the field of magnetic resonance. The committee aims to organize a traditional School with physical presence in Roshchino when international travelling is allowed again.

Konstantin Ivanov
September 2020



Sharing science on virtual platforms during the pandemic

Since the beginning of March, the COVID-19 pandemic has abruptly changed the way billions of people work and live. For the scientific communities, these changes include working from home and not being able to share our latest research findings at scientific conferences. In particular, essentially all of the conferences we normally attend have been cancelled or postponed. Motivated by the positive reception of the Virtual EPR Meetings [1] organized by Nino Wili and his colleagues, we (Kong and Bob) decided on a Friday afternoon to initiate a weekly ZOOMinar series [2] with the goal of disseminating research results in the area of solid-state NMR and DNP on ZOOM, an online meeting platform. As is the case with any good science idea, we organized everything in a short period of time. After Alexander Barnes (ETH-Z) agreed to do the initial presentation, we were able to schedule the speakers for the first month, build a website, assemble an electronic mailing list, and launch our first ZOOMinar session five days after we had our initial discussion. To our surprise, the online webinar attracted over ~250 participants in the first few sessions, and it peaked at ~450 attendees when we hosted Malcolm Levitt (Southampton) and Snaedis Bjoergvinsdottir (EPFL) on May 20. We knew then that the series will likely continue for a long time, and, at the time of writing this article, we completed the 14th session. Of course, whatever success the ZOOMinar series has enjoyed is due to the contributions of the scientists who agreed to present their results and whose names are compiled on the ZOOMinar website. We all owe them a thanks for generously sharing their scientific contributions.

Although it is much easier, both financially and logistically, to organize an online meeting than a conventional on-site conference, there were some new challenges. For instance, the rise of online meetings has prompted security issues where a small group of individuals interrupt the meetings, a phenomenon fashionably known as 'zoombombing'. For this reason, we adopted a more advanced 'webinar' feature (generously supported and paid for by MIT IS&T), which allows only one-way transmission of information from the panelists to the attendees. Another unexpected outcome of webinar forum is the Q&A function that allows attendees to post and vote on questions anonymously. This allows students or postdocs, who are sometimes shy or afraid of exposing their ignorance, to express their doubts and opinions in public. Hence, it is not uncommon that there are as many as ~ 20 questions posted to the ZOOMinar Q&A box, while talks in conferences like the ENC often have only one or two questions. This active interaction among the attendees is certainly an improvement over the traditional on-site meeting and a positive feature of the webinar meetings.

The popular reception of the online scientific meetings has prompted us to wonder about the fates of these meetings when our scientific lives return to "normal" post-pandemic. An online survey by Nature indicated that 81% [3] of their readers think that these meetings should continue to be virtual after the pandemic. A similarly

positive feedback on the virtual meetings was reported in Science [4]. Nevertheless, many believe that traditional on-site conferences are still essential and cannot be fully replaced by virtual meetings, i.e. in-person interactions are still an important element in stimulating scientific ideas and fostering collaborations between laboratories.

Lastly, we would like to acknowledge the other magnetic resonance groups in the community that initiated similar scientific meetings on virtual platforms [5-10]. These are important endeavors that allow us to continue to exchange ideas/results, and to impact society in a positive manner, even in difficult times. As the pandemic is not over, and perhaps far from it at the time of writing, we would like to urge everyone to stay alert, healthy, and continue pursuing science!

Kong Ooi Tan and Bob Griffin



The 14th Zoominar on 22nd July, where we hosted Monica Blank from CPI and Prof. Dr. Bernd Reif from TU München.

References

- [1] <https://ieprs.org/on-line-activities/>
- [2] <https://griffingroup.mit.edu/ssnmrdnp-zoominar>
- [3] Chris Woolston, 'Learning to love virtual conferences in the coronavirus era', Nature, May 2020 (doi:10.1038/d41586-020-01489-0)
- [4] Michael Price, 'As COVID-19 forces conferences online, scientists discover upsides of virtual format', Science, Apr 2020 (doi:10.1126/science.caredit.abc5170)
- [5] <https://www.mpibpc.mpg.de/emergingmr/>
- [6] <https://sites.google.com/view/nmr-seminar-series/home>
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- [8] <https://www.youtube.com/channel/UCMDyU6NMYzR3LByZWP4sg>
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- [10] <https://tube.switch.ch/channels/fb103798>

IES Virtual EPR Meetings

By now (September 2020), every scientist is probably familiar with online seminars. Back in March, this was not the case at all. ETH Zurich, where I conduct my doctoral research, switched from classroom to online teaching within less than a week, and shortly after, the whole university was closed. And it was clear pretty quickly that all the conferences I planned to attend would be cancelled or postponed.

Because the social aspect of being a scientist is very important to me personally, I posted on Twitter that I would be happy to chat via Zoom (which I have not heard of until a week earlier) with other PhD students and Postdocs about their research. Dennis Bückler from Konstanz and Asif Equbal from UCSB contacted me shortly after and indicated their interest. An informal chat evolved into an extended group seminar. The first one was on March 22. And one or two weeks later, Songi Han contacted me, indicating that the IES (International EPR/ESR Society) would like to endorse the virtual meetings and help with the organization. Bob Griffin and Kong Ooi Tan (who was my first laboratory teaching assistant during my undergrad) were in the audience as well, and I was happy to see that they started a similar seminar series on ssNMR/DNP.

The audience numbers peaked somewhere over 100 participants at the beginning of May. This is comparable to the number of attendees at EPR-only conferences. There are still regular participants, but the numbers are definitely lower again. I think this is because many universities are open again, and that there are many, many other seminar series happening every week. But as everywhere else in research, numbers are not everything. I am still very happy every time there is an extended scientific discussion after a talk, and I got several emails from people who expressed how much they enjoy(ed) the virtual meetings.

Because the schedules are tighter again, we decided to reduce the density of the seminars. They are now once a month, usually on the last Friday of the month. And while we started out focusing on research talks by early career researchers, we now also include tutorials. The first one of these was by the phenomenal Nicholas Chilton on single molecule magnets (the video can be found on our website).

If you think this is not enough, I am very happy that we could find some enthusiastic researchers in the Asia/Pacific region which host their own EPR seminars. Because it is impossible to find a time that works for everyone around the globe, they hold meetings at different times, some of which are better for scientists in the Americas, and others which are easier for people in Europe. Please check the website for details. All of this would not work without a community that was there long before COVID-19. I am very grateful to everyone who gave a seminar, to the people who listen to the talks and participate in the discussions and of course to everyone in the committee and the IES who helped with the organization.

<https://ieprs.org/on-line-activities/>

Nino Wili (coordinator, Foto 1)



Committee:

Annalisa Pierro, BIP Marseille (Foto 2)

Sonia Chhabra, Max-Planck-Institute for Chemical Energy Conversion (Foto 3)

Dennis Bückler, University of Konstanz (Foto 4),

Jason W. Sidabras, Max-Planck-Institute for Chemical Energy Conversion (Foto 5)

Lizzy Canarie, University of Washington (Foto 6)

Asif Equbal, UC Santa Barbara (Foto 7)

Shreya Ghosh, University of Pittsburgh (Foto 8)

Asia/Pacific Edition:

Martyna Judd and Julien Langley, Australian National University in Canberra

Fei Kong, University of Science and Technology of China

Hiroki Nagashima, Saitama University

IES: Aharon Blank, Songi Han

Dr. Kirill V. Kovtunov
(14.01.1983 – 19.05.2020)

Kirill's scientific career started in 2003 when, as a chemistry student at the Novosibirsk State University (NSU), he came to the International Tomography Center (ITC), SB RAS, to work on his diploma thesis. He was engaged in comparative studies of liquid and gas flow in complex geometries such as intersecting channels and microreactors using magnetic resonance (micro)imaging techniques. After successfully graduating from NSU in 2005, he joined the MR microimaging laboratory at ITC as a PhD student. From then on, his research was about combining magnetic resonance, catalysis, and parahydrogen. The primary objective of his PhD thesis was to demonstrate parahydrogen-induced polarization (PHIP) effects with the use of heterogeneous catalysts, as opposed to PHIP in homogeneous systems which by then was a well-established research field. To say that the task that he faced was challenging would be an understatement – a common perception at that time was that observation of PHIP effects in heterogeneously catalyzed reactions (HET-PHIP) would be impossible. Yet, in the history of scientific research in general, and magnetic resonance in particular, there are many examples of “impossible” things becoming a reality, with magnetic field effects in chemical reactions being one excellent illustration. HET-PHIP became yet another such example, first demonstrated with the use of transition metal complexes immobilized on porous or polymeric supports in 2007, and then successfully, and rather unexpectedly, extended to supported metal nanoparticles. This latter achievement has opened an entirely new dimension for parahydrogen-based research, demonstrating its applicability not only for the production of catalyst-free hyperpolarized liquids and gases for potential biomedical applications, but also for addressing challenges of modern fundamental and industrial catalysis which is largely dominated by heterogeneous processes. Based on these novel and significant results, Kirill defended his PhD thesis entitled “Parahydrogen-induced polarization of nuclear spins in heterogeneous catalytic hydrogenation reactions” in 2008 and became a full-time researcher at ITC.



Kirill was an accomplished world-traveler; this photo shows him during a sight-seeing trip to fort San Domingo, New Taipei, while visiting research partners in Taiwan in 2019.

In subsequent studies, the scope of HET-PHIP was expanded significantly. HET-PHIP effects, initially observed with immobilized metal complexes and supported metals, were eventually demonstrated for a wide variety of catalyst types, including supported and bulk metal oxides, sulfides, and carbides. The effects of the variation of the type of metal, support, catalyst preparation and pretreatment, of metal-support interactions as well as substrate types on PHIP effects was explored, and mechanisms and kinetics of some important catalytic processes were considered. The most recent efforts addressed single-atom and single-site heterogeneous catalysts prepared using surface organometallic chemistry as well as single-site bimetallic systems, the trends that became popular recently in modern catalytic research and practice. In addition to PHIP studies, Kirill was active in the development and applications of another parahydrogen-based hyperpolarization technique termed SABRE, including the extension of its scope to novel substrates, and development of its heterogeneous version. Significant attention in his work was devoted to extending spin polarization lifetime via transfer to heteronuclei and by exploring and exploiting the properties of long-lived spin states, to developing approaches for production of catalyst-free biocompatible contrast agents for in vivo MRI, and to application of the developed hyperpolarization techniques to MR imaging of operating catalysts and model reactors in the operando regime.

Kirill's contribution to the field is certainly crucial, yet all this would have been hardly possible without a vast network of contacts and collaborations at the national and international level that he participated in, starting from the joint grant with the group of Alex Pines at UC Berkeley that resulted in the very first observation of heterogeneous PHIP effects, and gradually expanding over the years to include researchers and teams in the Netherlands, the US, Switzerland, Spain, Germany, Finland, France, Italy, UK, China, Japan, and a number of teams in Russia, including a long-term collaboration with many researchers at the Boreskov Institute of Catalysis in Novosibirsk.

Kirill was also a very passionate teacher, who deeply cared about the careers of his trainees. He supervised a number of graduate and undergraduate students, and three Ph.D. students he trained now successfully continue their careers in science. He always was eager to orchestrate the exchange visits for his trainees to enrich their scientific experience and provide meaningful training that would lead to accomplishments and breakthroughs.

While the load of research-related work and responsibilities he had to carry was rather heavy, Kirill nevertheless managed to find time for a short break in the midst of his busy schedule to enjoy his favorite outdoor activities including hunting and fishing.

Kirill coauthored over 100 peer-reviewed papers and book chapters (h=28), 41 of which became the solid basis for his habilitation (Dr. Sci.) thesis which he defended on December 25, 2019, a major milestone in one's scientific career. He was eager to finalize all defense-related formalities as soon as possible so that he could start a new chapter in his scientific research career and embark upon exploring new ideas and addressing novel challenges, with his research interests extending to in vivo applications of PHIP-based hyperpolarized metabolites and gases, enrichment of nuclear spin isomers of polyatomic molecules, application of hyperpolarized noble gases, and more. He was full of energy and enthusiasm, and the future looked bright and promising - or so it seemed. About two weeks later he was diagnosed with cancer. And despite his unwavering resolve to fight the illness, and significant progress with the treatment, he passed away on May 19, 2020, at the age of 37.

He was awarded the Young Scientist Prize at the 16th International Congress on Catalysis (ICC 16) in Beijing, China, for the exceptional results presented at the Congress (2016); the Medal of the Russian Academy of Sciences with the Prize for young scientists (2015); the first-degree diploma of the laureate of the personal award of the administration of the Novosibirsk Region for young scientists (2009); and John Wiley & Sons 2008 Magnetic Resonance in Chemistry Award for Young Scientists at the Euromar meeting (2008). He was also the winner of the competition for grants of the President of the Russian Federation for state support of young Russian scientists - candidates of science (2010, 2013) and the winner of the Zamaraev International Charitable Foundation Prize / scholarship for PhD students (2008).



Kirill (right) receiving the John Wiley & Sons Award for Young Scientists from Prof. Geoffrey Bodenhausen (left) at the Euromar 2008 meeting in St. Petersburg.

With his wife Larisa, he was raising two kids, son Artem and daughter Tatyana. For them, for his parents, and the entire extended family this is a tragic and devastating blow beyond imagination. This is also a tremendous loss for the group, for the graduate and undergraduate students he supervised, and for his numerous colleagues and friends all around the world.



Outside of the lab, Kirill was an avid hunter and fisherman; photo shows Kirill after a successful ice-fishing trip at the artificial Ob lake in Novosibirsk.

We have lost a valued colleague, a reliable partner, and a personal friend. We'll miss his openness, amiable nature, and infinite enthusiasm. And we'll remember him. Always.

Igor Koptyug, Eduard Chekmenev, Boyd Goodson, Valerii Bukhtiyarov

Minutes of the meeting of the AMPERE Bureau online, on September 9, 2020

Members present (12):

A. Kentgens, J. Dolinsek, T. Prisner, M. Britton, A. Böckmann, B.H. Meier, B. Blümich, M. Ernst, S. Hiller, S. Jurga, J. Plavec, H. Oschkinat, S. Jurga

Excused (5):

G. Otting, J. van Duynhoven, G. Bodenhausen, O. Millet, Y.-Q. Song, H.-W. Spiess

Agenda:

1. Approval of the agenda.
2. Approval of the minutes of the AMPERE Bureau meeting in Zürich
March 19, 2020
3. Report on the state of the AMPERE Society (B. Blümich)
4. Financial Report (M. Ernst)
5. Report EUROMAR Division (T. Prisner)
6. Financial report EUROMAR division (A. Kentgens)
7. Report Publication Division (Magnetic Resonance) (M. Ernst for G. Otting)
8. Report on AMPERE and Andrew Prizes (B. H. Meier)
9. Elections and General Assembly (B. Blümich, M. Ernst)
10. Varia
11. Date of next meeting

At 14:00 hours, Matthias Ernst opened the meeting.

Ad 1.

The agenda was approved as is.

Ad 2.

The minutes of the AMPERE Bureau were approved. B.H. Meier spotted that item 8, line 9, erroneously spelled Andrew prize instead of Ampere prize. This is herewith corrected.

Ad 3.

B. Blümich reported that due to COVID-19, conferences and schools had to be cancelled and consequently, not many activities have been ongoing. As a main topic for discussion, the question was raised, how AMPERE can pursue its mission in the current "Corona World". Following the foundation of the Magnetic Resonance journal in the past year, the AMPERE society has been extended by the publication division. The General Assembly cannot meet in 2020, because the EUROMAR Bilbao had to be cancelled. Consequently, the election for president is postponed to next

year. B. Blümich therefore suggests that while the society can operate for one year with suspended elections, the society should make sure that whatever restrictions will be in place in 2021, an election is somehow organized. Considering the number of committee members, the AMPERE committee expect to have a particularly high number of 13 members retiring at the same time point in four years from now (2024). This would essentially be half of the Committee. As a suggestion to flatten this peak, B. Blümich proposes to elect a few additional members in each year from 2021 to 2023 and then be able to decrease the number of committee members to be elected in 2024 accordingly. The report is followed by a discussion of all members, what kind of online meetings and conferences should be offered in these times of Corona restrictions. Pure online events as well as hybrid events of online presentations and optional physical presence were considered including vendor interactions and poster events. B. Blümich raised the question of providing online conference software by the Groupement AMPERE to all its divisions.

Ad 4.

M. Ernst presented the financial report. Finances are very stable and partially increased compared to previous years. A large number of people renewed their membership without participating in a conference. The financial situation of all subdivisions is stable and partially very positive.

Ad 5.

Thomas Prisner reported on the EUROMAR division. EUROMAR 2020 was re-scheduled for December but was now finally cancelled and will take place as a virtual event, on December 7 and 8, organized by Oscar Millet. A focus will be on young people allowing them to present. Prizes will be given and prize lectures will be held. The Varian Young Investigator Award will be given at EUROMAR 2020. EUROMAR 2021 will be held in Slovenia, organized by Janez Plavec. At the moment, it is hoped that a real-life meeting can take place, but the organizers prepare in parallel plan B for a virtual (or perhaps hybrid) meeting.

Ad 6.

A. Kentgens reported on the finances of the EUROMAR division. Berlin EUROMAR has finished positively. The two existing bank accounts (one in EUR and one in CHF) have been merged into one. Finances are healthy. B. Blümich congratulates on the strong financial success.

Ad 7.

M. Ernst reports on behalf of G. Otting and G. Bodenhausen. In Magnetic Resonance, there are now 24 publications at different stages. 15 are finally published. Some are in the review/discussion stage. The journal has attracted articles from physics and chemistry-related fields, including EPR and MRI, but not strongly from Bio-NMR.

There will not be an impact factor for the first 2 years, nor will there be indexing in Web of Science. Given the starting difficulties to be expectable, there is general positive development for the journal.

Ad 8.

B.H. Meier reported on the Ampere and Andrew Prizes and the funds to support meetings. The committee had around a dozen candidates for Andrew and six for the Ampere prize. The names will be released next week. It would be great to have more proposals in the future. We will try to increase the awareness for the prizes.

Ad 9.

Due to the cancellation of EUROMAR, holding elections is difficult to impossible this year. M. Ernst and B. Blümich will suggest to the committee the proposal that the general assembly is skipped for this year and no bureau elections are held. This suggestion will need final approval by the committee. The bureau discusses how the AMPERE society could best be represented at the virtual EUROMAR conference and decides that AMPERE would like to have a half hour on the EUROMAR to present the activities of the individual subdivisions in short presentation. This suggestion will be discussed with O. Millet and the committee.

Ad 10.

There are no varia.

Ad 11.

Next meeting is on March 18, 2021.

The meeting closed at 15:31.

Basel / the internet, 9 September 2020

Sebastian Hiller

Minutes of the meeting of the AMPERE Bureau online, on September 11, 2020

Members present (25):

J. Dolinsek, P. Giraudeau, R. Boelens, J. Banyas, A. Kentgens, S. Hiller, S. Ruthstein, T. Prisner, O. Millet, M. Pons, P. Vasos, D. Topgaard, K. Jaudzems, G. Bodenhausen, A. Böckmann, B.H. Meier, B. Blümich, M. Ernst, H. Oschkiant, I. Reile, I. Felli, J. Plavec, S. van Dorslaer, F. Rise, W. Kozminski, S. Jurga

Excused (10):

C. Thiele, V. Telkki, P. Crowley, S. Ashbrook, F. Simon, J. van Duynhoven, B. Kragelund, M. Britton, A. Gil, V. Chizhik, H.W. Spiess

Agenda:

1. Approval of the agenda.
2. Approval of the minutes of the AMPERE Bureau meeting in Berlin August 27, 2019
3. Report on the state of the AMPERE Society (B. Blümich)
4. Financial Report to be presented at the General Assembly (M. Ernst)
5. Elections and General Assembly (B. Blümich, M. Ernst)
6. Reports from the Subdivisions (representatives)
7. Future activities of the Groupement AMPERE (M. Ernst)
8. Varia

At 14:00 hours, Matthias Ernst opened the meeting.

Ad 1.

The agenda was approved as is.

Ad 2.

The minutes of the AMPERE committee were approved.

Ad 3.

B. Blümich reported that due to COVID-19, not many activities have been ongoing. This will remain for the foreseeable future. A key topic will be to develop strategies how AMPERE can pursue its mission in a "Corona World". The society needs to stay visible. In the past year, the AMPERE society has been increased by the new publication division. In the year 2020, the regular elections of the AMPERE general assembly could not take place, because the EUROMAR Bilbao had to be cancelled. The AMPERE Bureau is of the opinion that we should have no elections this year,

because organizing them in a different way might introduce a strong bias compared to the established procedures. The society can continue with suspended elections for one year and will make sure that elections are certainly taking place in 2021. The AMPERE committee will have 13 members for renewal this year. If all are elected for a second term, half the Committee will rotate off in four years. Proposal from B. Blümich is to elect additional new members this year to flatten the distribution over the years. The report is followed by a discussion of all members, what kind of online meetings or conferences should be offered in these times where all things are cancelled.

Ad 4.

M. Ernst presented the financial report. Finances are very stable and partially increased compared to previous years. Only two conferences did take place. A large number of people renewed their membership. The financial situation of all subdivisions is stable and partially very positive. In normal years, these finances would need to be approved by the general assembly. The committee recommends approval of the finances by the general assembly.

Ad 5.

As introduced in the report by the president, M. Ernst proposes that the society suspends all elections for this year and postpones them to next year. As outlined above, holding a general assembly in alternative format might create strong bias. The committee agrees on this plan. Consequently, the elections of president and Bureau members are postponed to 2021.

Ad 6.

Short reports by the subdivisions are given. European Federation of EPR groups (EF-EPR) by S. van Dorslaer. No meetings had been planned for this year. Spatially Resolved Magnetic Resonance (SMRM) by D. Topgaard. The meeting planned for next year in Sweden is still on track as a physical meeting. The MRPM meeting in Norway had to be cancelled. The next meeting is planned for 2022 in China and 2024 in Norway. Magnetic Resonance in Food Science by D. Topgaard. Division meeting was cancelled and moved to next year. Hyperpolarization in Magnetic Resonance by G. Bodenhausen. Division meeting in France has been cancelled and was postponed to 2021. Arising problem is that meeting may now collide with Chamonix meeting. They might be held on consecutive weeks. Biological solid-state NMR by H. Oschkinat. The school this fall has been cancelled and is now planned to be held in early summer. Location and modus are unclear, perhaps near Berlin and potentially in a combined online/in-person form. EUROMAR division reported by T. Prisner and O. Millet. EUROMAR Bilbao had to be cancelled and has been converted to a shortened online format in December. J. Plavec reports on the progress of planning of EUROMAR 2021. This conference will back up the plan B to go for online conference

by a professional support company or a hybrid format. Decisions have to be taken in December. G. Bodenhausen reports on the publication division. The contract was signed last year. The journal Magnetic Resonance has collected 5 manuscript in 2019 and 23 manuscript in 2020. These numbers are substantially below JMR and journals like JACS. The quality of the papers is however good and the reviewing works well. There is high response from physics-associated disciplines, but not many submissions from the bio-NMR field. Some technical problems with invitation letters to reviewers have been solved. All in all, the development of the journal is seen cautiously positive, thanks also to strong efforts by G. Bodenhausen and G. Otting.

Ad 7.

The committee discusses on different forms to run conferences. B. Blümich had a recent demonstration with the software HOPIN, which was generally positive. It has plenty of features including separate discussion and poster forums and is used worldwide, by large audiences. The software is not for free, but the amount to be spent would be bearable by the society. The British CCPNMR conference made positive experience with HOPIN. It was agreed that the society (M. Ernst) carefully looks into the software and price details. Further discussion points included as to whether the EUROMAR should again have a permanent secretary as it used to be in older times. It is also discussed whether online conferences need a "local organizer" or whether this can be centralized.

Ad 8.

No Varia

The meeting closed at 15:38.

Basel / the internet, 11 September 2020

Sebastian Hiller

Balance of the Accounts of the Groupement Ampere and the Subdivisions

Period from July 31. 2019 to June 30. 2020

	Balance on July 31. 2019	Membership Fees / Registration Payments	Donations/ Conference support	Conferences Grants / Travelgrants/ Membership Fee paid to Ampere	Conference Sponsoring	Conference Surplus	Administration Bulletin print Web and Bureau Meetings / MR design	Bank Charges / Depot Charges/ losses on Depot	Account Closing / Account carry over	Bank Interests Account carry over, Dividends	Gains on Value Paper	Balance on June 30. 2020
Groupement Ampere												
Ampere (CHF)	15'525.51						1'286.20	12.00				14'227.31
Ampere (Euro)	28'943.09	25'964.30		3'800.00			1'524.44	44.66				49'538.29
Andrew (CHF)	26'295.86			557.76				426.25		8.70		25'320.55
Andrew Depot (CHF)	94'297.95							2'695.38				91'602.57
Subdivisions												
Biol. Solid State (Euro)	8'620.24		2'650.00					33.12				11'237.12
EPR (CHF)	7'425.65									1.4		7'427.05
Food NMR (CHF)	917.80						276.63	26.00		0.15		615.32
MRPM (CHF)	31'329.80					1'271.80				6.00		32'607.60
SMRM (CHF)	47'330.88			1'096.97		19'778.72	41.28	2.00		8.85		65'978.20
Hyp (CHF)	7'343.25									1.40		7'344.65
Euomar												
Euomar (CHF)	71'598.89							3.00	71'595.89			0.00
Euomar (Euro)	31'248.65							44.66		67'407.40		98'611.39

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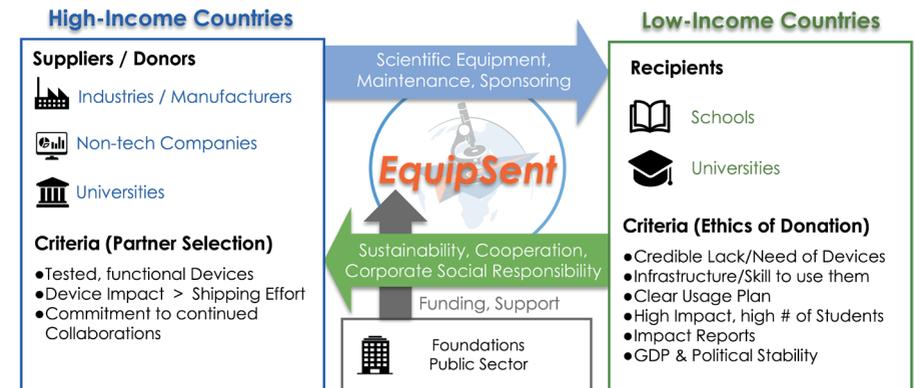
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The AMPERE BUREAU includes the executive officers (which take the responsibility and the representation of the Groupement between the meeting of the committee), the honorary members of the Bureau and the organizers of forthcoming meetings.

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Future conferences

Ampere Events 2020

Euromar 2020	online	Dezember 7-8 2020
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Ampere Event 2021

MR FOOD 2021	Aarhus	June 8-12 2021
Euromar 2021	Protorož (Slovenia)	July 4-8 2021
Alpine Conference on Magnetic Resonance in Solids	Chamonix (France)	12-16 September 2021

Ampere Event 2022

Euromar 2022	Utrecht (Netherlands)	3-7 July 2022
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Ampere Event 2024

HYP24	Leipzig (Germany)	September 2024
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Groupement
AMPERE

www.ampere-society.org