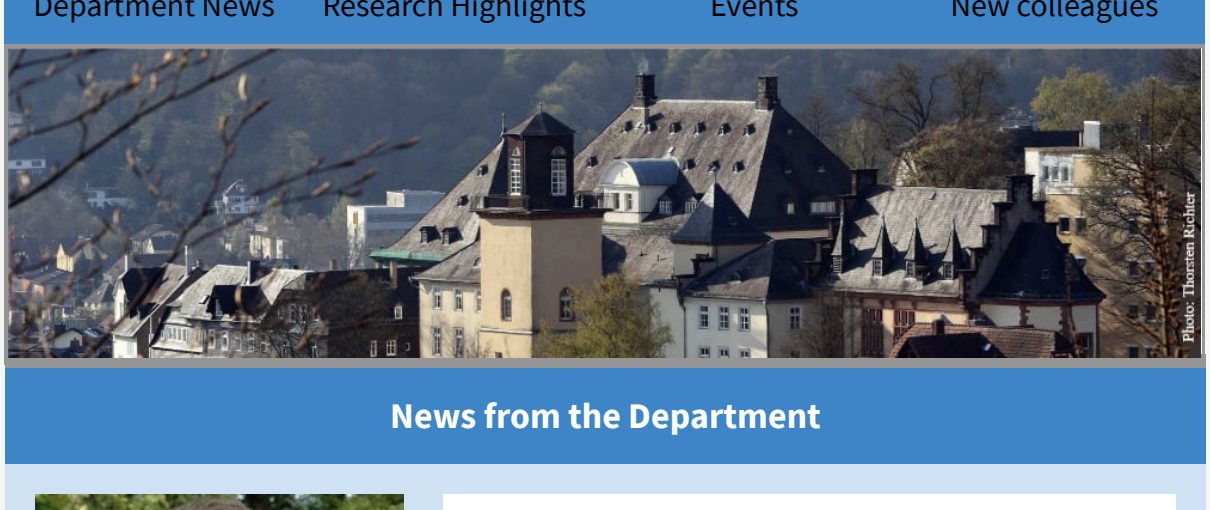
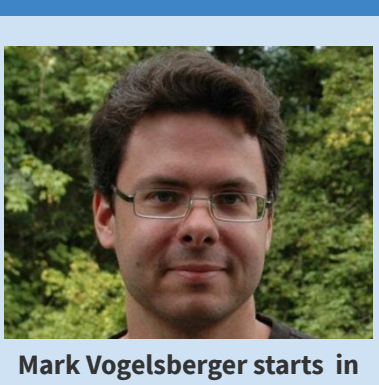
Philipps Universität Marburg

Newsletter Physics 03/25

Department News | Research Highlights | Events | New colleagues



News from the Department



Mark Vogelsberger starts in our Department on March 1

We warmly welcome Prof. Mark Vogelsberger to our Department. He is one of most renowned scientists in the field of data- and and computer-based astrophysics and moves from the Massachusetts Institute of Technology (MIT) to the Philipps University of Marburg. He has also received a LOEWE top professorship allowing him to boost the start of his research group. With his expertise in artificial intelligence, we will further expand the research profile of our Department.

Wir heissen Prof. Mark Vogelsberger herzlich willkommen in unserem Fachbereich. Er ist einer der renommiertestesn Wissenschaftler auf dem Gebiet der daten- und computerbasierten Astrophysik und wechselt vom Massachusetts Institute of Technology (MIT) an die Philipps-Universität Marburg. Er wurde ebenfalls durch eine LOEWE-Spitzenprofessur ausgezeichnet, die es ihm ermöglichen, seine Forschung schnell aufbauen zu können. Mit seiner Expertise im Bereich der künstlichen Intelligenz werden wir das Forschungsprofil unseres Fachbereichs weiter in dieses Zukunftsfeld ausbauen können.

read more

Interview with Dr. Stefan Kachel

The PR team has continued the series of interviews with key people in our department, this time with Dr. Stefan Renato Kachel, the coordinator of the SFB 1083. Learn more about Stefan Kachel who is a multi-tasking expert as SFB coordinator, managing director, scientist, event manager, mediator, linguistic talent and reptile breeder. Read about his hobbies and future plans in the full interview (in German) that has been conducted by Sarah Zajusch.

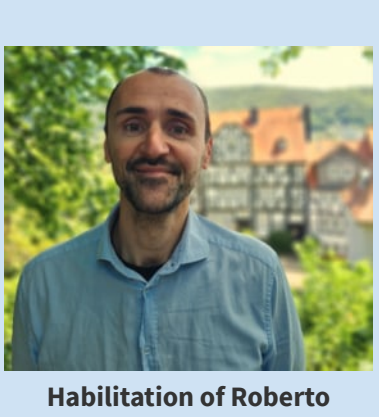
Die Werbegruppe hat die Interviewreihe mit Schlüsselpersonen unseres Fachbereichs fortgesetzt, diesmal mit Dr. Stefan Renato Kachel, Koordinator des Sonderforschungsbereichs SFB 1083. Stefan Kachel ist ein Multi-Tasking-Talent: er ist SFB-Koordinator, Geschäfts-führer, Wissenschaftler, Event-manager, Mediator, Sprachtalent und Reptilienzüchter. Mehr zu seinen Hobbies und Zukunftsplänen findet ihr im vollständige Interview, das von Sarah Zajusch geführt wurde.

Interview

Arne Sjörgen PhD Award for Daniel Erkensten (AG Malic)

We congratulate Daniel Erkensten from the Ultrafast Quantum Dynamics group for obtaining the Arne Sjögren Award for the best PhD thesis in nanoscience and nanotechnology at the Chalmers University of Technology in 2024. The prize is awarded by the Nano Area of Advance, which is selecting the best PhD thesis from all natural science departments. The prize committee was very impressed by Daniel's work and scientific achievements, which resulted in several highly cited publications. Besides the recognition of his work, Daniel also obtains 3.000€ and will present the highlights of his thesis at a conference organized by the Nano Area of Advance.

Wir gratulieren Daniel Erkensten aus der Gruppe für ultraschnelle Quantendynamik zum Erhalt des Arne-Sjögren-Preises für die beste Doktorarbeit in Nanowissenschaften und Nanotechnologie an der Chalmers University im Jahr 2024. Der Preis wird von der Nano Area of Advance vergeben, die die besten Doktorarbeiten aus allen naturwissenschaftlichen Fachbereichen auswählt. Das Preiskomitee war sehr beeindruckt von Daniels Arbeit und seinen wissenschaftlichen Leistungen, die zu mehreren hochzitierten Veröffentlichungen geführt haben. Neben der Anerkennung seiner Arbeit erhält Daniel auch 3.000€ und wird die Highlights seiner Arbeit auf einer von der Nano Area of Advance organisierten Konferenz präsentieren.

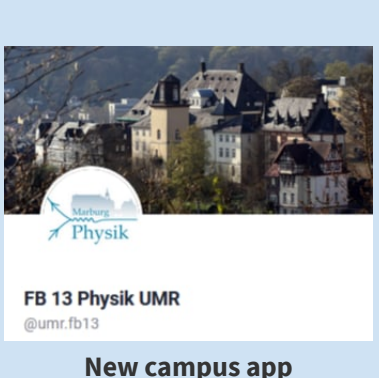


Habilitation of Roberto Rosati (AG Malic)

We congratulate Dr. Roberto Rosati on his habilitation with the topic "Two dimensional semiconductors: Optical and electronic properties", which has been also published as a book chapter in the Elsevier Collection "Comprehensive Semiconductor Science and Technology". Roberto did his PhD thesis in 2014 in Politecnico di Turino in the group of Fausto Rossi. As postdoctoral researcher he has become an expert in the field of microscopic modeling of exciton transport in atomically thin semiconductors.

Wir gratulieren Dr. Roberto Rosati zu seiner Habilitation mit dem Thema „Two dimensional semiconductors: Optical and electronic properties", die auch als Buchkapitel in der Elsevier-Sammlung "Comprehensive Semiconductor Science and Technology" veröffentlicht wurde. Roberto machte seine Doktorarbeit 2014 am Politecnico di Turino in der Gruppe von Fausto Rossi. Als Postdoktorand ist er Experte auf dem Gebiet der mikroskopischen Modellierung des Exziton-Transports in atomar dünnen Halbleitern geworden.

read more



New campus app

Did you know that the University of Marburg now has its own app? Information about your studies, simplified access to your email inbox and the University Library's lending account, the mensa timetable, the timetable integrated from Marvin in your own calendar, individual links: The Uni Marburg app brings all of this together. Our PR team has created an account for the Department of Physics and will post our activities and events. Check it out.

Wusstet ihr schon, dass die Uni Marburg jetzt ihre eigene App hat? Informationen rund ums Studium, der vereinfachte Zugriff auf das E-Mail-Postfach und das Ausleihkonto der Universitätsbibliothek, der Mensaplan, der aus Marvin integrierte Stundenplan im eigenen Kalender, individuelle Links: All das bündelt die Uni Marburg-App. Die Werbegruppe hat nun dafür gesorgt, dass der Fachbereich Physik seit Anfang Februar dort auch am Start ist und wird über unsere Aktivitäten und Events posten.

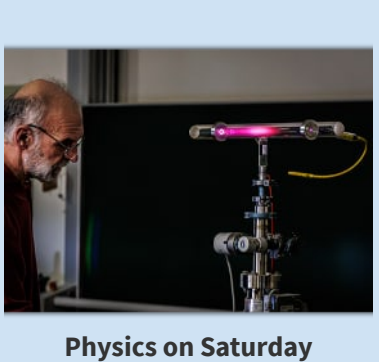
read more

38th University Days of Physics - Event on quantum technologies

To mark the International Year of Quantum Physics, the 38th University Days of Physics at the University of Marburg focused on quantum technologies, exploring fundamental principles, real-world applications, and key challenges in quantum computing and communication. The event attracted a broad audience and featured distinguished speakers, including Prof. Jens Eisert, a leading expert in quantum algorithms, as well as Prof. Reinhard Noack, Prof. Rainer Müller, Prof. Gesche Pospiech, and Prof. Stefan Heusler. A special highlight was Stefan Heusler's connection to Marburg as the great-grandson of Friedrich Heusler, whose discoveries on Heusler alloys link the region's scientific heritage to modern quantum materials. The enthusiastic participation and engaging discussions underscored the growing interest in quantum technologies and their impact on science and industry.

Anlässlich des internationalen Jahres der Quantenphysik widmeten sich 38. Physikalischen Hochschultage der Universität Marburg den Quantentechnologien und beleuchteten die grundlegenden Prinzipien, realen Anwendungen und zentralen Herausforderungen im Bereich Quantencomputing und -kommunikation. Die Veranstaltung zog ein breites Publikum an und konnte mit namhaften Referenten aufwarten, darunter Prof. Jens Eisert, ein führender Experte für Quantenalgorithmen, sowie Prof. Reinhard Noack, Prof. Rainer Müller, Prof. Gesche Pospiech und Prof. Stefan Heusler. Ein besonderes Highlight war Stefan Heuslers Verbindung zu Marburg als Urenkel von Friedrich Heusler, der mit seinen Entdeckungen über Heusler-Legierungen das wissenschaftliche Erbe der Region mit modernen Quantenmaterialien verbindet. Die rege Teilnahme und die engagierten Diskussionen unterstrichen das wachsende Interesse an Quantentechnologien und deren Auswirkungen auf Wissenschaft und Industrie.

read more



Physics on Saturday Morning

The current run of our lecture series "Physics on Saturday Morning" has been a great success! Numerous attendees have taken the opportunity to be inspired by fascinating talks. The first three lectures, given by Heinz Jänsch, Gesa Helms, and Jens Güdde consistently drew a full audience to the lecture hall. In these talks, such topics as gravitation, electricity and quantum physics were discussed. The event series is planned again for the upcoming winter. Further information will be published on the department's website.

Der aktuelle Durchlauf unserer Veranstaltungsreihe „Physik am Samstagmorgen" war ein voller Erfolg! Zahlreiche Interessierte haben die Gelegenheit genutzt, um sich von spannenden Vorträgen inspirieren zu lassen. Bei den angebotenen Vorträgen, gehalten von Heinz Jänsch, Gesa Helms, Jens Güdde und Reinhard Noack war der Hörsaal durchgängig sehr gut gefüllt. Dabei wurden Themen wie die Gravitation, die Elektrizität und die Quantenphysik besprochen. Auch für den kommenden Winter ist die Veranstaltungsreihe wieder geplant, die Informationen dazu werden unter anderem auf der Fachbereichs-Homepage veröffentlicht werden.

Solar system installed on Renthof 7

The state of Hesse plans to cover most usable roof areas with photovoltaic (PV) systems by 2030 if the technical requirements and authorisations (listed buildings) are met. The University of Marburg is installing a large number of PV systems on the roofs of university buildings. At Renthof, a 40 kWp system has now been installed on the roof of the Renthof 7 institute building. The system can cover around 24% of the electricity requirements. Any surplus is fed into the campus's own power grid and used in the buildings. It is always difficult to install PV systems visibly on historic buildings, especially when the surfaces can be seen from the castle. For example, the system on Renthof 7 had to be authorised by the monument protection authorities. The roof of the material store in the inner courtyard of the Renthof is also to be fitted with a PV system this year.

Das Land Hessen plant, nutzbare Dachflächen bis 2030 weitgehend mit Photovoltaik (PV)-Anlagen zu belegen, wenn die technischen Voraussetzungen und Genehmigungen (Denkmalschutz) vorliegen. Die Universität Marburg errichtet eine Vielzahl von PV-Anlagen auf den Dächern von Universitätsgebäuden. Am Renthof wurde jetzt das Dach des Institutsgebäudes Renthof 7 mit einem 40 kWp Anlage belegt. Die Anlage kann etwa 24 % des Strombedarfs decken. Überschüsse werden in das eigene Stromnetz des Campus eingespeist und dort in den Gebäuden verbraucht. Bei den historischen Gebäuden ist es immer schwierig, PV-Anlagen sichtbar einzusetzen, gerade dann, wenn die Flächen von Schloss aus einsehbar sind. So musste die Anlage auf dem Renthof 7 vom Denkmalschutz genehmigt werden. Auch das Dach des Materiallagers im Innenhof des Renthofs soll in diesem Jahr noch mit einer PV-Anlage belegt werden.

Renovation work on Camera Obscura

The Camera Obscura is operated by volunteers in good weather at weekends and on public holidays between April and October and attracts around 2,500 visitors a year. In the Camera Obscura, the surroundings are projected onto a plate with a diameter of 1.20 metres using simple optics. This gives visitors a detailed view of the entire Upper Town. Since it was put into operation in 2002, the converging lens and the deflecting mirror have become outdated and need to be replaced. The Camera Obscura was therefore taken out of service at the end of August 2024 as a support rod had also broken. In addition, necessary adjustments need to be made to the tower frame inside the Camera Obscura and moving parts need to be maintained and repaired. The university's Department IV is erecting scaffolding so that the work can be carried out safely. A small crane is needed to lift the lens and mirror out and back in via the roof. The fencing secures the construction site. With the current modernisation, the Camera Obscura is expected to be ready for use again from summer 2025.

Die Camera Obscura wird von freiwilligen Helfern bei gutem Wetter an den Wochenenden und Feiertagen zwischen April und Oktober betrieben und zählt jährlich etwa 2.500 Besucher. In der Camera Obscura wird durch eine einfache Optik die Umgebung lichtstark auf eine Platte mit einem Durchmesser von 1,20m abgebildet. Den Besuchern eröffnet sich so ein detaillierter Blick auf die ganze Oberstadt. Seit der Inbetriebnahme im Jahr 2002 sind die Sammellinse und der Umlenkspiegel in die Jahre gekommen und müssen ersetzt werden. Daher wurde die Camera Obscura Ende August 2024 außer Betrieb genommen, da auch ein Haltestab gebrochen war. Zudem müssen im Inneren der Camera Obscura notwendige Anpassungen am Turmgestänge durchgeführt, bewegliche Teile gewartet und instandgesetzt werden. Das Dezernat IV der Universität stellt dazu ein Gerüst auf, damit die Arbeiten sicher durchgeführt werden können. Ein kleiner Kran wird benötigt, um Linse und Spiegel über das Dach heraus bzw. wieder hinein zu heben. Die Einzäunung sichert die Baustelle ab. Mit der jetzigen Modernisierung wird die Camera Obscura voraussichtlich ab Sommer 2025 wieder einsatzbereit sein.

Mehr (für) Physikstudentinnen

The "More (for) female physics students" project organised an excursion to the GSI Helmholtz Centre for Heavy Ion Research in Darmstadt on 06.12.24. Twenty-four women from the physics department came together there, ranging from first-semester students to doctoral candidates. After overview presentations on research and the various accelerators, there were guided tours of the accelerator facility, various experiments and the viewing platform at the FAIR construction site. The group took a refreshing lunch break in the canteen, where they were able to exchange ideas with each other and with one of GSI's women's representatives. The female students received a lot of information about the opportunities for students at GSI, such as summer programmes or final theses. The excursion was very exciting and informative!

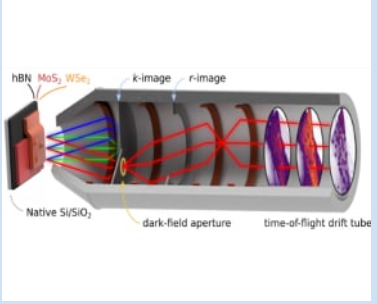
Das „Mehr (für) Physikstudentinnen" Projekt organisierte am 06.12.24 eine Exkursion zum GSI Helmholtzzentrum für Schwerionenforschung in Darmstadt. Dort kamen 24 Frauen aus der Physik zusammen, von Erstsemester bis hin zur Promovendin. Nach Übersichtsvorträgen über die Forschung und die verschiedenen Beschleuniger, fanden Führungen zur Beschleunigeranlage, zu verschiedenen Experimenten und zur Aussichtsplattform an der FAIR-Baustelle statt. Die Gruppe legte in der Kantine eine stärkende Mittagspause ein und konnte sich dabei untereinander, aber auch mit einer der Frauenbeauftragten der GSI austauschen. Dabei erhielten die Studentinnen viele Informationen über die Möglichkeiten für Studierende an der GSI, wie Sommerprogramme oder Abschlussarbeiten. Die Exkursion war sehr spannend und informativ!

Excursion to Bad Hersfeld

The secretaries of the physics department went together to an excursion to Bad Hersfeldin December. The day began with breakfast together in Mainzer Gasse, after which they took the bus to Bad Hersfeld. The city is known for its festival and has a beautiful Christmas market in winter. A tour guide awaited them there for a Christmas tour of Bad Hersfeld.

Die Sekretärinnen des Fachbereichs Physik unternahmen im Dezember einen gemeinsamen Ausflug nach Bad Hersfeld. Der Tag begann mit einem gemeinsamen Frühstück in der Mainzer Gasse, danach ging es mit dem Bus nach Bad Hersfeld. Die Stadt ist bekannt für ihre Festspiele und hat im Winter einen schönen Weihnachtsmarkt. Dort erwartete sie ein Reiseleiter für eine weihnachtliche Stadtführung durch Bad Hersfeld.

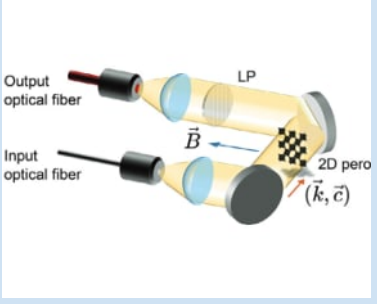
Research Highlights



Ultrafast nano-imaging of dark excitons (AG Malic)

The role and impact of spatial heterogeneity in two-dimensional quantum materials represents one of the major research quests regarding the future application of these materials in optoelectronics and quantum information science. In the case of transition-metal dichalcogenide heterostructures, in particular, direct access to heterogeneities in the dark-exciton landscape with nanometer spatial and ultrafast time resolution is highly desired, but remains largely elusive. In this joint experiment-theory work between the groups of Stefan Mathias (Göttingen) and AG Malic, we introduce ultrafast dark field momentum microscopy to spatio-temporally resolve dark exciton formation dynamics in a twisted WSe2/MoS2 heterostructure with 55 femtosecond time- and 500~nm spatial resolution. This allows us to directly map spatial heterogeneity in the electronic and excitonic structure, and to correlate these with the dark exciton formation and relaxation dynamics. The benefits of simultaneous ultrafast nanoscale dark-field momentum microscopy and spectroscopy is groundbreaking for the present study, and opens the door to new types of experiments with unprecedented spectroscopic and spatiotemporal capabilities. The work was published in **Nature Photonics.**

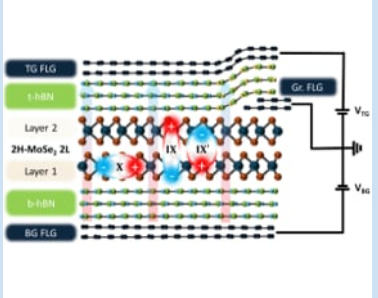
read more



Engineering of Exciton Fine Structure in 2D Perovskites (AG Malic)

This joint experiment-theory work between Paulina Plochocka (CNRS Toulouse) and AG Malic, provides a comprehensive study of excitonic properties of 2D layered perovskites, with an emphasis on understanding and controlling the exciton fine structure. Through magneto-optical spectroscopic measurements (up to $B = 140$ T), scaling laws are established for exciton binding energy as a function of the band gap and the diamagnetic coefficient. Using an in-plane magnetic field, the exciton fine structure for various 2D perovskites is examined to measure the energy splitting between the excitonic levels. The exciton fine structure and exchange interaction are correlated with structural parameters, employing an effective mass model, to highlight the role of steric effect on the exchange interaction. These findings reveal that lattice distortions, introduced by organic spacers, significantly influence the exchange interaction, driving a tunable energy spacing between dark and bright excitons. This unique feature of 2D perovskites, not present in other semiconductors, offers a novel tuning mechanism for exciton control, making these materials highly promising for efficient light emitters and advanced quantum technologies. This work was published in **Advanced Energy Materials.**

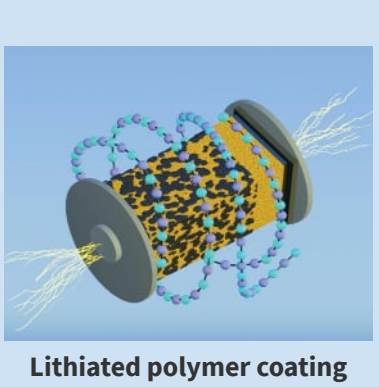
read more



Quadrupolar excitons in MoSe2 bilayers (AG Malic)

The quest for platforms to generate and control exotic excitonic states has greatly benefited from the advent of transition metal dichalcogenide (TMD) monolayers and their heterostructures. Among the unconventional excitonic states, quadrupolar excitons - a hybridized combination of two dipolar excitons with anti-aligned dipole moments - are of great interest for applications in quantum simulations and for the investigation of many-body physics. In this joint experiment-theory study including Paulina Plochocka (CNR Toulouse), Alexey Chernikov (TU Dresden) and AG Malic, we unambiguously demonstrate for the first time in natural MoSe2 homobilayers the emergence of quadrupolar excitons, whose energy shifts quadratically in electric field. In contrast to, so far reported trilayer systems hosting quadrupolar excitons, MoSe2 homobilayers have many advantages, a stronger interlayer hybridization, cleaner potential landscapes and inherent stability with respect to moiré potentials or post-stacking reconstruction. Our experimental observations are complemented by many-particle theory calculations offering microscopic insights in the formation of quadrupole excitons. Our results suggest TMD homobilayers as ideal platform for the engineering of excitonic states and their interaction with light and thus candidate for carrying out on-chip simulations. The work was published in **Nature Communications.**

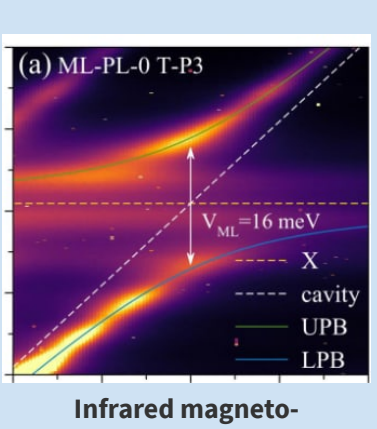
read more



Lithiated polymer coating for interface stabilization in solid-state batteries (AG Volz)

Li_6PS_5Cl-based solid-state batteries with high-nickel $LiNi_{0.9}Mn_{0.05}Co_{0.05}O_2$ (NCM) promise higher energy density and safety than lithium-ion batteries with liquid electrolyte. However, their cycling performance is often limited by interface degradation between NCM and solid electrolyte. Researchers from the AG Volz together with colleagues from Giessen show that a coating on NCM particles mitigates this issue. This uniform coating impedes direct contact between NCM and solid electrolyte, which lessens interface degradation and improves cycling performance. Additionally, the coating effectively suppresses side reactions at the NCM/SE interface. Overall, sPPSLi/PVP-coated NCM shows remarkable improvements in cycling stability and rate capability, emphasizing the significance of applying polymer coatings. The work was published in **Journal of Materials Chemistry A.**

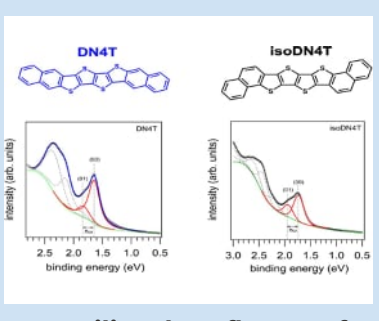
read more



Infrared magneto-Polaritons in MoTe2 (AG Malic)

MoTe2 monolayers and bilayers are unique within the family of van-der-Waals materials since they pave the way towards atomically thin infrared light-matter quantum interfaces, potentially reaching the important telecommunication windows. In this joint experiment-theory study including Christian Schneider (Oldenburg) and AG Malic, we report emergent exciton-polaritons based on MoTe2 monolayer and bilayer in a low-temperature open micro-cavity. Our experiments clearly evidence both the enhanced oscillator strength and enhanced luminescence of MoTe2 bilayers, signified by a 38 % increase of the Rabi-splitting and a strongly enhanced relaxation of polaritons to low-energy states. The latter is distinct from polaritons in MoTe2 monolayers, which feature a bottleneck-like relaxation inhibition. Both the polaritonic spin-valley locking in monolayers and the spin-layer locking in bilayers are revealed via the Zeeman effect, which we map and control via the light-matter composition of our polaritonic resonances. The work was published in **Physical Review Letters** (selected as Editor's suggestion).

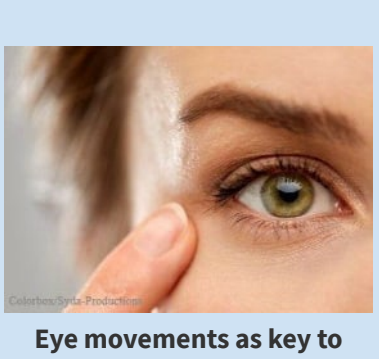
read more



Unveiling the Influence of Molecular Structure and Intermolecular Packing on Electronic Properties (AG Witte)

In a recent collaboration between the research groups of Prof. N. Koch (Humboldt-Universität Berlin), Prof. Y. Geerts (Université Libre de Bruxelles), and Prof. G. Witte (Marburg) the interplay between molecular arrangement in organic thin films and their charge transport properties was studied. By combining STM and NEXAFS measurements the Marburg team identified the structural evolution during the initial growth of two closely related thienoacene isomers, DN4T and isoDN4T, on graphite. Complementary thickness-dependent ARUPS measurements revealed a significant HOMO level splitting in isoDN4T, attributed to polarization-induced effects, indicating a subtle interplay between the molecular packing, the interaction with the substrate and their electronic properties. The present study is published in **The Journal of Physical Chemistry C**.

read more

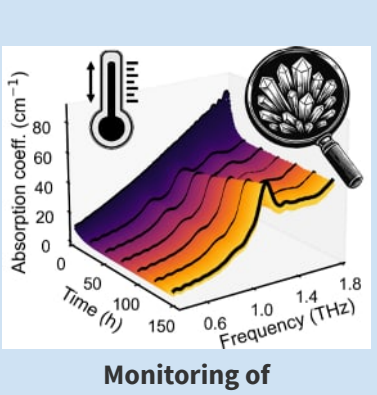


Eye movements as key to improved early diagnosis of Parkinson's disease (AG Bremmer)

Neurodegenerative diseases such as Parkinson's disease (PD) are on the rise worldwide. In the clinic, the phenotypic similarities between early-stage PD and diseases such as early-stage multiple system atrophy (MSA) complicate treatment strategies. Accurate differentiation of these diseases is critical to the development of treatments that can delay progression from the prodromal stage through early symptomatic stages to full-blown disease. Video-based eye tracking allows the simultaneous measurement of eye movements, pupil size and blinking. The data obtained is important in differentiating Parkinson's disease from other related brain disorders and in assessing the severity of impairment. In a recent study by the Neurophysics Group in collaboration with the Department of Neurology at the University Hospital Giessen-Marburg (UKGM), the eye movement behavior of people with Parkinson's disease (PD), MSA and people at risk of developing PD, such as those with isolated rapid eye movement sleep disorder (iRBD), was compared with that of healthy controls. The results showed that PD and MSA patients had irregular eye movements and pupil responses. iRBD patients at high risk of developing PD or MSA had similar changes in pupil size to PD patients, suggesting that pupil changes may serve as an early indicator of patients at risk of developing PD. The work was published in **Sage Journals.**

read more

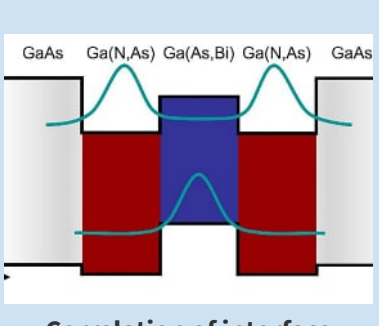
press release



Monitoring of crystallization processes (AG Koch)

We all know crystallization processes in our daily lives, such as the formation of ice or sugar crystals. However, the underlying mechanisms and possible influences on nucleation and crystal growth are still not fully understood. Moreover, the crystallinity of a drug can play a crucial role in pharmaceutical research and industry, as it can significantly influence the bioavailability of drugs. In this study, AG Koch developed a custom-built temperature-controlled measurement platform that allows in-situ crystallinity analysis of multiple samples using terahertz spectroscopy. In a proof-of-principle study, the crystallization of initially amorphous nifedipine - an antihypertensive and widely used model drug - was studied quasi-continuously over several days. The approach provided detailed insights into the drug's crystallization behavior, which is crucial for understanding its stability and efficacy. The findings could have significant implications for pharmaceutical research, potentially leading to improved drug formulations and storage methods. Furthermore, it could be used to gain deeper insight into crystallization processes in general. This work was published in **Scientific Reports.**

read more



Correlation of interface structure and optical properties (AG Volz)

For applications in sensing and medicine, certain emission wavelengths of LASERs are required, which up to now are not achievable yet or are only achievable on undesired (i.e. expensive cause scarce) substrates. The type-II band alignment of particular III/V heterostructures is a promising route towards mitigating this. This study from the AG Volz reports on the progress in combining dilute nitrides and dilute bismides in "W-type" hetero structures to improve the luminescence intensity, which is a fundamental prerequisite for future incorporation in a LASER structure. Increasing the emission wavelength of these structures is challenging and the interface formation is critical, especially as two metastable materials are combined. The material combination is grown using metal organic vapour phase epitaxy and characterized by a multimodal approach. The present study is published in **Journal of Crystal Growth**.

read more

Events

Protocol writing workshop

As part of the project "More (for) female physics students", a writing workshop will be offered on two Wednesday afternoons for writing internship protocols and solving problems together. All students in the GPA & GPB are cordially invited to take part on 5 March from 12 to 5pm and on 12 March from 1 to 6pm in the seminar room of Renthof 5. If you have any questions about writing protocols, drawing diagrams, using LaTeX, plotting graphics, etc., you've come to the right place. But you are also welcome to drop by for co-working.

Summer party of the Physics department

Even though it's still cold outside and summer seems a long way off, the Fachschaft has already started planning the physics summer party. With this in mind - save the date: 24 June from 3 pm on in the yard behind Renthof 7.

New Colleagues

Jan Schreiber (AG Witte)

I completed my Master's degree in Physics just before Christmas 2024 in the group Molekulare Festkörperphysik. In my PhD I will continue the research on interactions of crystalline molecular solids with TMDC surfaces utilizing different techniques like STM and optical anisotropy analysis. Since I enjoy spending my free time with sports and being outdoors, I am looking forward to staying in this beautiful city.

Kabyashree Sonowal (AG Malic)

I joined the Ultrafast Quantum Dynamics group as a Humboldt postdoctoral researcher in October 2024. I completed my PhD from South Korea in 2023, and before that I did my Masters and Bachelors in Physics from India. I have a background in semiclassical and phenomenological methods to study transport phenomena in various Quantum materials, including superconductors. Currently, I am working on charge transfer excitons in lateral heterostructures. I look forward to interacting with colleagues, and also enjoy my stay in this beautiful city.

Share your good news

Your newsletter team: Carina Hlawaty, Oliver Rehn and Ermin Malic

Send us an e-mail with a short text and a nice foto to newsfb13@physik.uni-marburg.de

write e-mail