

Additional Positions for Excellent Female Scientists

New initiative offers long-term prospects for female junior scientists with outstanding qualifications



With the Lise Meitner Excellence Program, the Max Planck Society is strengthening its commitment to supporting high-achieving women in their scientific careers. Starting in the spring of 2018, up to ten additional Max Planck Research Group positions will be made available each year for female scientists. The positions will be filled through a multi-stage selection process in close collaboration with interested Max Planck Institutes. The Group Leaders will receive a fixed-term, five-year W2-level contract. In addition, they will have the opportunity to participate in a tenure-track procedure that, following a comprehensive assessment, will secure them a permanent W2-level position with group facilities. “This new program offers unique opportunities,” emphasizes Max Planck President Martin Stratmann: “free scientific development, long-term job security and clear career prospects. I am convinced that this will help us attract future Directors.” The Max Planck Society is set to invest more than 30 million euros by 2022 to enhance career prospects for female scientists.

Opening the door for talent: The Max Planck Society aims to enhance its pool of high-calibre female researchers through the Lise Meitner Excellence Program.

Innovation to Improve Machine Text Comprehension

Spin-off company of the Max Planck Institute for Informatics develops technology to automatically comprehend information

The ability to understand texts correctly remains a challenge for computers, as such content often contains ambiguous terms that are hard to interpret. For example, humans can decipher the meaning of the headline “Sterling tumbles once again” based on the context. An informed reader would recognize that, rather than reporting a drop in the currency market, the article relates to England soccer player Raheem Sterling, a midfielder with a reputation for fall-

ing too easily. For machines, such interpretations are barely possible – yet they are essential if we hope to make comprehensive use of digital content.

To solve this problem, researchers at the Max Planck Institute for Informatics in Saarbrücken created the knowledge base Yago. It’s a semantic database containing more than ten million entities (names, organizations, cities and similar items) and is something like a lexicon for machines. Am-

biverse, a spin-off company from the Max Planck Institute, used the database to develop an intelligent software solution for automatic and accurate recognition and interpretation of ambiguous words and phrases in texts. Ambiverse aims to tailor search and analysis tools to suit companies’ requirements, making them better able to electronically evaluate such data from news archives, company documents and product reviews.

“Moral courage is needed everywhere”

Anna Baumert is investigating which personality traits enable fearless intervention in the face of injustice

Moral courage is a quality we hold in high regard. But why do we so often hesitate to stand up for justice? And how do morally courageous individuals differ from others? Together with her team, Anna Baumert, Leader of the Max Planck Research Group on Moral Courage at the Max Planck Institute for Research on Collective Goods in Bonn, is currently searching for answers to these questions. One thing is certain: wise and supportive intervention can be learned everywhere – even on a small scale.

Dr. Baumert, moral courage is often sensationalized in the press. Where does your focus lie?

Anna Baumert: We're concerned with basic research. We investigate situations in which someone commits an injustice, breaks rules or behaves immorally – and is observed by another person. The psychological processes and mechanisms that dictate whether a bystander intervenes against a perpetrator are presumably quite different than, for example, the processes that dictate whether a person helps a stranger.

So, just how courageous are we humans?

When an injustice occurs, far fewer people intervene than you might expect. I don't exclude myself from this. I would hope that, if I were to find myself in a sticky situation, I would be prepared to come up with an effective way to intervene. However, research confirms that my thinking that I would intervene doesn't necessarily match the reality. We described a scenario to participants and then placed them in the actual situation. It became clear that there are major discrepancies between intending to intervene and actually intervening. Many people overestimate their will or ability to act.

But there are always people who intervene in difficult situations. What sets them apart?

So far, we can only speculate about that. First of all, there is a certain moral dispo-

sition. How conscious is a person of moral issues? How important are their moral principles to them? How strongly do they tend to react with negative emotions when they experience injustice or witness immorality? It's also a question of impulsiveness: How strong is a person's impulse compelling them to intervene in certain situations? Their willingness to break internalized social rules also plays a role. Most of us have learned to conduct ourselves in a controlled manner, manage our emotions and leave others in peace.

So are these societal norms the reason why few people intervene?

That's our assumption, yes. In situations where there is a perpetrator who could be detained, a person must first defy numerous internalized conventions. It's not that easy.

It's also often not clear whether intervention is actually justified or not.

With actions driven by moral courage, there is certainly a risk of falsely accusing someone – and thus getting yourself into an embarrassing situation. Intervening can be just as much of a mistake as doing nothing. Ultimately, you must ask yourself what the consequences of each “mistake” might be.

Should I feel bad if I don't intervene?

From a psychological perspective, there are many hurdles that make not intervening understandable. However, everyone should realize that their behavior impacts the behavior of others. If you remain inactive and do nothing, the risk increases that others will follow suit and do the same. It's important to weigh up each situation. We recommend not always getting right in the middle of something – or you just might find yourself in great danger.

What should we do if things become precarious?

Essentially exactly what the police recommend: Engage other people and point the injustice out to them. Look to make



Anna Baumert

allies, get help and then stay on the scene as a witness.

You're hoping to develop a characterology of courageous helpers through your study. What is your approach?

We invite people who have shown moral courage in the past to take part in our study. These are people who have been recognized in Germany for their actions. We also issued a more general call for participants who experienced injustice as a bystander and intervened in some way. We send everyone to whom this applies a two-part questionnaire that can be completed online and then analyze their answers anonymously.

There are training schools for moral courage – can anyone learn to act courageously?

This is a very individual matter. Schools are positive and helpful, and I'm sure our research findings can also be relevant for such training courses. But it isn't only about major conflict situations; moral courage is needed everywhere – in schools, in neighborhoods and even in the workplace. There are plenty of minor situations in which people can intervene against injustice. Becoming more conscious of injustices is something you can learn anywhere.

Interview: Martin Roos

Twofold Partnership with Harvard

Max Planck Society launches two new collaboration projects with leading US university

Max Planck scientists work closely with their colleagues at elite US universities in a number of fields. Now two new collaborative endeavors have been established at the institutional level. In October 2017, work commenced on a new center to research the ancient Mediterranean region. The primary focus of the Max Planck-Harvard Research Center for the Archaeoscience of the Ancient Mediterranean is mobility in the Mediterranean region between 1600 and 1000 BCE. The Center will enable scientists at Harvard University in Cambridge (Massachusetts) and the Max Planck Institute for the Science of Human History in Jena to combine established archaeological and historical approaches with state-of-the-art biotechnological methods.

The Max Planck Harvard Research Center for Quantum Optics took up its work in January. One hundred years after the quantum nature of light and matter was discovered, quantum physics is currently experiencing something of a revolution: new techniques are laying the foundations for major discoveries in particle physics and for innovative devices, such as the quantum computer. The joint Center combines the expertise and infrastructure of the Max Planck Institute of Quantum Optics in Garching and Harvard University, offering new ways to address the unsolved problems of quantum physics.



Opening handshake: Mark C. Elliott, Vice Provost for International Affairs at Harvard, with Max Planck President Martin Stratmann at the inaugural ceremony for the joint Research Center for the Archaeoscience of the Ancient Mediterranean.

Fourfold Success

Four Max Planck Directors awarded this year's Leibniz Prize

The German Research Foundation (DFG) selected 11 successful candidates from among 136 nominations for this year's Leibniz Prize – and four Max Planck Directors were among the winners. Alessandra Buonanno of the Max Planck Institute for Gravitational Physics in Potsdam received the honor for her theoretical models that make it possible to identify and interpret gravitational waves. Erika L. Pearce from the Max Planck Institute of Immunobiology and Epigenetics in Freiburg was honored for her exceptional research

into metabolism and immune processes. The prize was also awarded to Jens Beckert of the Max Planck Institute for the Study of Societies in Cologne in recognition of his accomplishments in renewing an interdisciplinary perspective in social sciences, particularly at the interface of sociology and economics. The fourth member of the Max

Planck Society's prizewinning quartet is Bernhard Schölkopf of the Max Planck Institute for Intelligent Systems in Tübingen. The computer scientist has made key contributions to the theory and success of machine learning. The prizes, which carry an endowment of 2.5 million euros, were awarded at a ceremony in Berlin in March.



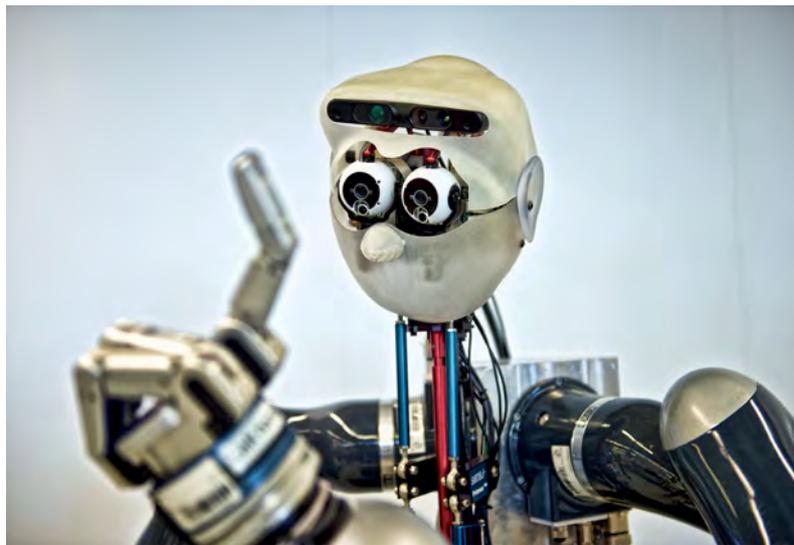
The triumphant four (from left): Alessandra Buonanno, Jens Beckert, Erika L. Pearce and Bernhard Schölkopf receive the Leibniz Prize 2018.

Amazon Arrives in Cyber Valley

The technology company is supporting a project to develop artificial intelligence in the Stuttgart-Tübingen region

Cyber Valley has gained another industry partner: Amazon wants to take part in the research project initiated by the Max Planck Society in December 2016. The technology company plans to contribute 1.25 million euros to research groups in the Stuttgart-Tübingen region over the coming years. Furthermore, Amazon will establish a research center of its own near the Max Planck Institute for Intelligent Systems in Tübingen and intensify its collaborative work with the Max Planck Society. Max Planck President Martin Stratmann welcomed the decision, saying: "We are gaining yet another strong partner that will further enhance the international significance of the research in Cyber Valley."

For the collaborative project – one of Europe's largest initiatives in the field of artificial intelligence – the Max Planck Society has joined forces with the German federal state of Baden-Württemberg, the universities of Stuttgart and Tübingen, and such companies as BMW, Bosch, Daimler, Porsche and ZF Friedrichshafen. The aim is to promote research into intelligent systems and create a suitable environment for a series of successful spin-offs.



An example of Cyber Valley success: Apollo the robot is expected to learn to move autonomously at the Max Planck Institute for Intelligent Systems.

On the Net



How to Reach 100 – and Enjoy It

That's the motto of "A Life Journey," a demographic app produced by Population Europe in Berlin. In addition to texts, infographics and videos, the app for iPad and iPhone includes a series of interactive games to introduce users to the topic of demographic change, for example by letting users calculate their life expectancy. The app, which is available in ten languages, is aimed primarily at students and teachers seeking an enjoyable method to explore demographic topics. A tutorial explains how to use the app, and additional teaching resources and webinars round out the app's content.

www.population-europe.eu/video/how-use-app-life-journey

In the Heart of Wendelstein 7-X

The new 360-degree panorama on the Max Planck Institute for Plasma Physics (IPP) website leads straight into the plasma vessel of the Wendelstein 7-X fusion research facility in Greifswald, Germany. Visitors to the website can also explore the experiment hall and visit the facility that heats plasma to several million degrees Celsius. Using a PC, tablet or smartphone, they can gain insight from every angle and zoom in to see even the smallest detail. With the click of a mouse, visitors can start and stop short videos in which IPP scientists describe their workplace, while pop-up information panels explain key components. The panorama was captured by Munich-based photographer Volker Steger, who previously produced the panorama of the IPP ASDEX Upgrade fusion device in Garching, near Munich.

www.ipp.mpg.de/panoramaw7xeng

Computer Vision

The International Max Planck Research School for Intelligent Systems (IMPRS) has launched an introduction video aimed at students who have obtained an outstanding master's degree and want to do extraordinary research in the field of intelligent systems. This interdisciplinary PhD program offered by the Max Planck Institute for Intelligent Systems, the University of Stuttgart, and the University of Tübingen has 29 PhD students and 21 faculty members working in different areas of intelligent systems, including computer vision, machine learning, robotics, haptics, control systems, perceptual inference, computer graphics and micro- and nanorobotics. The School is looking for young people with new ideas on how to shape the future.

www.youtube.com/watch?v=MXrW_yXJUal