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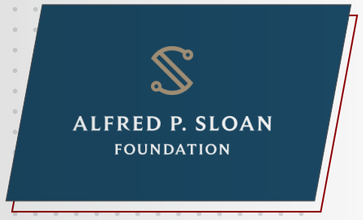
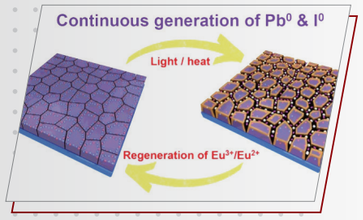


Seven PKU Alumni Will Be Granted A Sloan Research Fellowship 2020

The Alfred P. Sloan Foundation recently published a list of 126 young scientists who will be granted a Sloan Research Fellowship in 2020. We're proud to see that of the 16 Chinese people to earn this fellowship, 7 of them are Peking University's Alumni.

Peking University Professor Tian Hui wins Karen Harvey Prize

American Astronomical Society (AAS) Solar Physics Division (SPD) recently announced the winner of the 2020 Karen Harvey Prize. Professor Tian Hui from the School of Earth and Space Sciences of Peking University received this award. This is the first time that a China-based scholar has got this award in the field of solar physics. The award ceremony will be held at the solar physics annual conference in the United States.



Research Result of Zhou Huanping and Yan Chunhua / Sun Lingdong Research Group Selected Into Top Ten Scientific Progress of China 2019

On February 27, 2020, the High Technology Research Development Center (basic research management center) of the Ministry of Science and Technology of the People's Republic of China released the top ten scientific progress of China in 2019. The research result named "To clarify the mechanism of europium ion improving the life of perovskite solar cells" of Zhou Huanping research group from the College of Engineering, Peking University, and Yan Chunhua / Sun Lingdong research group of the College of Chemistry and Molecular Engineering, Peking University was selected.

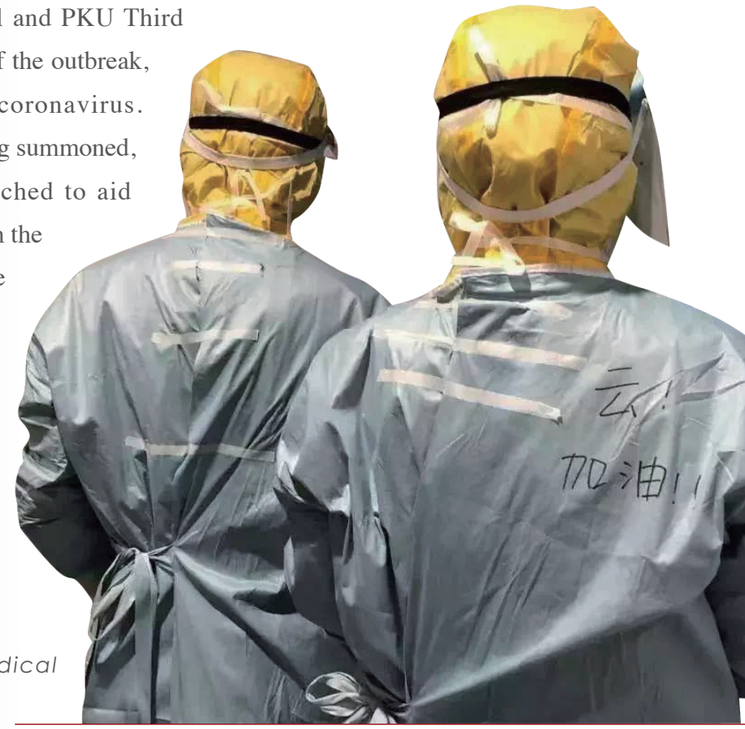
Against Coronavirus

PKUers Mobilized Across the Globe

As the fight against the novel coronavirus gets more and more intense in Wuhan, help has been pouring in from around the world. Among them are groups of PKUers that have been sparing no efforts in providing and gathering support across the globe.

Second Medical Team Dispatched to Wuhan

On February 1, a team of 12 medical personnel from Peking University People's Hospital, PKU First Hospital and PKU Third Hospital headed to Wuhan, the center of the outbreak, to join the fight against the novel coronavirus. Assembled within only 1 hour after being summoned, it is already the second team dispatched to aid efforts in Wuhan. They left directly from the hospital without even having a chance to say goodbye to their families. This team is led by the President of the PKU First Hospital Liu Xinmin, the President of PKU Third Hospital Qiao Jie and the Council Chair of PKU People's Hospital Zhao Yue.



Peking University medical team at the forefront

PKU Alumni Associations

Peking University Alumni Association of Canada

After the outbreak of the novel coronavirus, many Peking University alumni and alumni associations have stepped up to do their part in response to this epidemic. PKU alumni associations around the world have done their part to reach out to their home provinces or countries and collect valuable provisions to fight the disease, such as face masks, medical visors, and protective clothing. Other alumni associations directly

raised funds for relief efforts. More than thirty alumni associations and alumni enterprises, including the PKU Alumni Association in Japan, PKU Alumni Association in Singapore, PKU Alumni Association in Canada, New Oriental Education & Technology Group, and Tomorrow Advancing Life Education Group, have contributed a total of 200 million RMB worth of relief supplies so far. Thank you for all your generous donations!

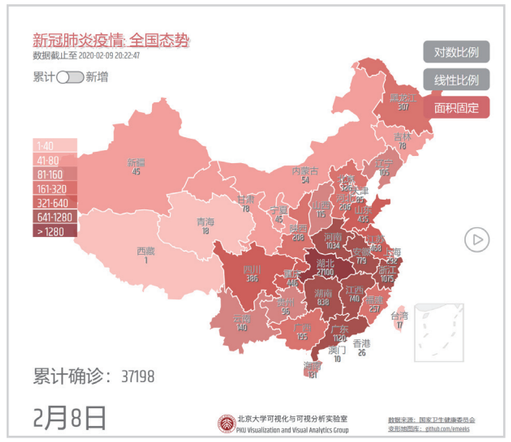
Support From International Alumni

In response to the disease epidemic, Israeli alumnus from the School of International Studies, Peking University and founder of Y-China, Raz Galor reached out to the Israeli embassy and Israeli hospitals to seek donations that might help the fight against the novel coronavirus. Thanks to his efforts, and the generosity of the Israeli people, shipments totalling 100,000 face masks, 50,000 medical gloves, and 2,000 surgical robes were sent to Hubei – the very heart of the battle against 2019-nCoV, and thus the place in the greatest need of this kind of aid.

Raz Galor, Israeli alumnus of Peking University

PKU Provides Visualization Solutions of COVID-19 Outbreak

During the Spring Festival break, even before the outbreak started to raise major public concerns, members of the PKU Visualization and Visual Analytics Group worked online from different locations across the nation to provide a comprehensive visualization depicting the development of coronavirus epidemic. The team was led by Prof. Yuan Xiaoru, a faculty member at PKU School of Electronics Engineering and Computer Science.



The visualization consists of geographic maps of the coronavirus outbreak at national, provincial and municipal levels, a barometer of the outbreak development, a visual analysis of social media related to the coronavirus and some infographics regarding the virus.

The barometer employs pixel visualization, using colored blocks to represent the amount of confirmed cases in each area each day. The color of blocks reflects whether or not the change represents an increase from the day before, while the changing size of the blocks tells you the exact number. Readers will be able to see the development trends of the epidemic both horizontally — changes between different time periods within the same area, and vertically — changes between different areas within the same time period.

To achieve the goal in a very short time, we must have international collaboration. When we started the project, we needed extra hands to help. I asked our formal members, including who are now in graduate school abroad, if they can help. They all joined without any hesitation.

One question many people may ask is how can the breakout of COVID-19 influence the world. Lately, PKU Visualization and Visual Analytics Group has released a novel visualization, Mortality-Line, for people to better understand the development of COVID-19, which shows the comparison of the daily of COVID-19 with other major infectious diseases in terms of the case fatality rate and death toll. The visualization is carefully designed, with the animation suggesting daily changes and the red trajectory keeping track of the dynamic process while alleviating our memory burden.

Data visualization is not merely about displaying the numbers correctly. Instead, it concerns uncovering the intrinsic property or the general story underlying data. "Inside the Squares," a collaborated project by Peking University Visualization and Visual Analytics Group and College of Visual and Performing Arts, Syracuse University, is such a visualization that aims to reveal the epidemic situation of COVID-19 with an intuitive grid of squares.

Each square represents a province, or a city in a particular province if we switch the view, where the background color indicates the number of the diagnosed, the green area is for cure rate and the black area for case fatality rate. By sliding the time window, it is intuitive to understand what is going on. For instance, Tibet pops out at first glance for being the only green one after Feb 12, when the only confirmed case recovered. In terms of the overview on Feb 14, the green color takes a significant portion in Qinghai, Ningxia, and Zhejiang province, which suggests a higher cure rate in these places. This visualization follows the metaphor of colors. When spring comes, things turn green, and we hope that the green will cover lands in suffering.

The comprehensive coronavirus visualization has been adopted by the Beijing Municipal Government for daily internal reports during the outbreak. Leading technology enterprises and major media agents in China have reached out to collaborate with the PKU Visual Analytics Group. Tencent, for example, has hosted this informative visualization module on its app WeChat used by tens of millions of people in China.

According to Prof. Xiaoru Yuan, who initiated this project, the fast production of high qualify visualization should be contributed to the hard working of all participants. "It is not a battle of PKUer alone. Several dozens of volunteers, worked together day and night to make this project possible." He mentioned that participants are from many universities internationally, in additional to the core visualization team at PKU.

"To achieve the goal in a very short time, we must have international collaboration. When we started the project, we needed extra hands to help. I asked our formal members, including who are now in graduate school abroad, if they can help. They all joined without any hesitation." The team also has very strong members in design, including Zhibang from Parsons School of Design, and Prof. Rebecca Xu from Syracuse.

Peking University Embraces Online Learning Amid the Novel Coronavirus Outbreak

As the novel coronavirus outbreak continues, Peking University decided to suspend on-campus courses and required all students not to come back to school until further notice. The university is making all-out efforts to minimize the disruption to teaching and learning amid the epidemic by rolling out a series of measures.

Starting from February 17, classes will be taken online via multiple e-platforms, such as ClassIn, Canvas and PKU's bespoke website (https://course.pku.edu.cn). Drawing upon these state-of-the-art technologies, teachers are able to lecture in a variety of ways including Live Streamed Lectures, Pre-recorded Lectures, MOOCs, Webinars and Studio Lectures. Additionally, online education can be done through video conferencing, WeChat groups and email communication. Each school and department will hold a video conference soon to brief students about online teaching arrangements and other relevant issues.

The Center for Excellent Teaching and Learning will also run web-based training sessions between February 6 and 14 for teachers who wish to sharpen their skills of teaching online. Moreover, Peking University uploaded video footage of lectures given by renowned scholars and courses delivered by award-winning teachers on a featured website (***http://resource.pku.edu.cn***), in an attempt to provide more resources for remote learning and ensure the quality of homeschooling.

Besides a series of online chat sessions guided by professional psychologists, Peking University will also launch online courses instructing students in various methods to keep fit indoors. These courses offer lessons on yoga, Taichi, and many forms of calisthenics.

PKU Alumnus
Zhong Nanshan
A Doctor With a Caring Heart

Zhong Nanshan, once known to China as the SARS hero, was again put under spotlight because of the COVID-19 outbreak. The 83-year-old epidemiologist was appointed head of the National Health Commission expert panel conducting research on the novel coronavirus outbreak. During the past month, Zhong plunged into a nonstop fight against the COVID-19 outbreak.

At the age of 84, Zhong is still fighting on the frontline of the novel coronavirus outbreak. With his professional medical skills and unwavering perseverance, Zhong has become a spiritual anchor for Chinese people at this difficult time.

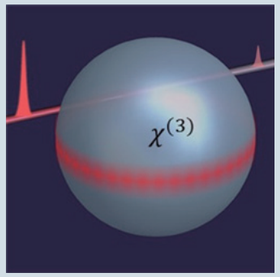
Recently, Zhong and his team have issued a preprint article on the clinical characteristics of the virus based on a study of 1,099 diagnosed patients. Zhong is optimistic that the epidemic will be under control. He advised that China should set up "a very strict law or stipulation" to ban wildlife trade after this outbreak. He also advised other countries to be on guard of any new kind of coronavirus infection in the future.

Duan Huiling's Group Makes Progress on Biomimetic Mechanics of Underwater Solid-liquid-gas Interface

Duan Huiling's group from College of Engineering, Peking University, found that the unique structures on the leaf surface of the floating fern, Salvinia molesta , could keep the underwater liquid-gas interfaces in a super stable state Through bionics and stablity analysis, they revealed the design principle of the surface structures on Salvinia leaf and the physical mechanism to keep the liquid-gas interface stabe . Following the natural design principle, they fabricated biomimetic artificial Salvinia surfaces by using 3D printing technology, whereby the super stable function of liquid-gas interfaces has been successfully achieved . This work was published in Proceedings of the National Academy of Sciences of the United States of America on February 4, 2020, entitled "Superrepellency of underwater hierarchical structures on Salvinia leaf" (*https://www.pnas.org/content/117/5/2282?iss=5*). Moreover, it was selected as the Cover of PNAS Issue 5, 2020.

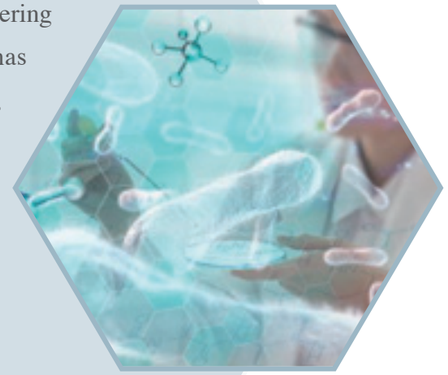
Reconfigurable Chiral Microlaser by Spontaneous Symmetry Breaking

During February, a team of researchers led by Professor Xiao Yun-Feng and Professor Gong Qihuang of School of Physics, Peking University, in collaboration with Professor Qiu Cheng-Wei at National University of Singapore and Professor Stefan Rotter at Vienna University of Technology, has demonstrated a spontaneously symmetry-broken microlaser in an ultrahigh-Q WGM microcavity, exhibiting reconfigurable propagating directions of the chiral laser.



High-throughput Single-cell Sequencing against the Novel Coronavirus

During February, Peking University Biomedical Pioneering Innovation Center, in collaboration with partners, has discovered a way to screen for neutralizing antibodies, that may be effective against the novel coronavirus using high-throughput single-cell sequencing. This work is led by the team of Professor Xie Xiao Liang.



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