

Newsletter

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Invited Talk on Paleoecological Insights into the Response of Biodiversity and Ecosystems to Climate Change September 11, 2022



Pakistan Academy of Sciences organized an invited talk on 'Paleoecological Insights into the Response of Biodiversity and Ecosystems to Climate Change' on September 11, 2022. Prof. Dr. Daniel Gavin from the Department of Geography, University of Oregon, USA was invited as a Guest Speaker. He was on a visit to Pakistan in connection with a Project titled "Enhancing the study of Climate Change and Glaciology in Gilgit-Baltistan" through collaboration between Karakoram International University and the University of Oregon, USA. Prof. Tasawar welcomed the Speaker and all the participants. Prof. Daniel is a biogeographer interested in understanding the present and past responses of Earth's biota to climate change. The invited talk offered a brainstorming session at the Pakistan Academy of Sciences for environmentalists, ecologists, paleo-climatologists, geologists, hydrogeologists, bio-geographers, and climate change specialists to discuss on the paleoecological insights into the response of biodiversity and ecosystems to climate change.

He covered an overview of the insights from the recent fossil record from lake sediments regarding how forest ecosystems and forest fires change from past climate changes from the ice age to the present and the biogeographic changes of species over the same time period. The issue of climate change has emerged as a matter of increasing concern among the global communities since the beginning of the 21st Century. Pakistan has been ranked among the top ten climatically vulnerable countries in the world. Specifically, the Gilgit-Baltistan region of Pakistan, being one of the world's most rugged and glaciated mountainous landscapes, is highly sensitive to the adverse impacts of climatic changes as is visible and being witnessed in the form of glacial melting at ever-increasing rates, extreme weather events, and the increasing frequency of devastating floods, rock-fall and other climate hazards. In particular, the mountain communities suffer from the negative impacts of hydro-meteorological hazards, with greater numbers of people migrating down the country than ever before given displacement from their homes due to extreme weather events. Women in Pakistan are more vulnerable to the impacts of climate change due to social, cultural, economic, political, and institutional barriers.

Prof. Qasim Jan, Prof. Aslam Baig, Prof. Amin Badshah, Prof. Zabta Shinwari and participants from the different Universities/Institutes attended the lecture.

MoU signed between Pakistan Academy of Sciences and Academy of Sciences of the Islamic Republic of Iran September 29, 2022

A memorandum of understanding (MOU) is signed between the Academy of Sciences of the Islamic Republic of Iran and Pakistan Academy of Sciences, Islamabad Pakistan, by the respective Secretary General on September 29, 2022.

Both agreed to establish a long-term mutually beneficial relationship based on scientific cooperation, collaboration, scholarly research activities and academic exchange of professional personnel ideas.

Hybrid Seminar Organized by PAS Sindh Chapter on “Building Climate Resilient Healthcare Infrastructure: Post Disaster Scenario in Pakistan” October 17, 2022



A Hybrid seminar on “Building Climate Resilient Healthcare Infrastructure: Post Disaster Scenario in Pakistan” was jointly organized by International Center for Chemical and Biological Sciences (ICCBS), Pakistan Academy of Sciences (PAS, Sindh Chapter), Sindh Innovation Research, and Education Network (SIREN), and Avoidable Deaths Network (ADN) in the Latif Ebrahim Jamal (LEJ), National Science Information Center, University of Karachi, Karachi on October 17, 2022. The event was graced by the presence of Prof. Dr. Mohammad Wasay (Secretary Sindh Chapter Pakistan Academy of Sciences), Prof. Dr. M. Iqbal Choudhry (Coordinator General, COMSTECH & Fellow PAS), Dr. Bilal Anwer (CEO National Disaster Risk Management Fund (NDMRF), Prof. Dr. Micheal Petterson (Auckland University of Technology, New Zealand), Dr. Nibedita Ray Bennet (University of Leicester (UK) and President Avoidable Deaths Network (ADN), Dr. Ghazna Khalid (Advisor, Federal Government of Pakistan on Health Emergencies) and Dr. Nimra Iqbal (Representative of Avoidable Deaths Network from Pakistan and co-organizer of the event).

The speakers shared diverse and interesting views ranging from how disasters are not a new phenomenon for Pakistan and what impacts they have on our economy, mental and physical health and further exacerbate the risk conditions for the vulnerable population specifically women and children.

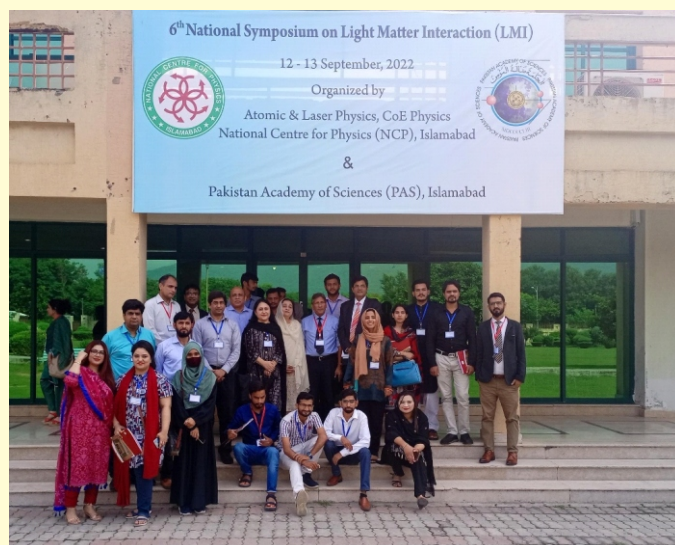
Dr. Mohammad Wasay highlighted the importance of improving disaster preparedness for future calamities. He further said that according to UN reports, among the 1700 deaths, about third of the deaths in the recent floods in Pakistan are children, while half a million flood displaced survivors are living in relief camps. He further discussed the health challenges faced by the displaced population which include infectious disease outbreaks, skin diseases, acute respiratory illness, malnutrition and exacerbation of preexisting chronic conditions like cardiovascular diseases and diabetes.

6th National Symposium on Laser Matter Interaction (LMI) September 12-13, 2022

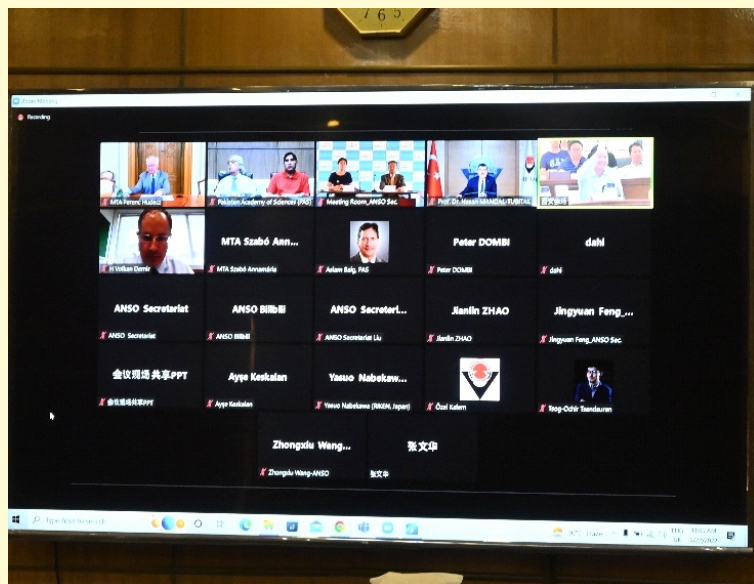
The sixth National Symposium on Laser Matter Interaction (LMI) was organized at the National Centre for Physics (NCP), from September 12-13, 2022 in collaboration with Pakistan Academy of Sciences. Prof. Dr. Aslam Baig (Fellow, PAS) was the Chief Organizer.

The main idea of holding the symposium was to provide a common platform to the national researchers working in the field of Atomic, Molecular and Laser Physics to discuss and share the recent advancements and challenges. The symposium highlighted the emerging technologies and prospects in the field of light-matter interactions.

Research students, post-doctoral researchers, faculty members, scientists and engineers participated in the symposium.



ANSO Symposium on “Basic Science for Sustainable Development – Sharing Light: Tradition and Innovation” September 22-23, 2022



Symposium was jointly hosted by the Alliance of International Science Organizations (ANSO), Xi'an Institute of Optics and Precision Mechanics (XIOPM), Chinese Academy of Sciences, Pakistan Academy of Sciences (PAS), The Scientific and Technological Research Council of Turkey (TUBITAK) with strong support from Hungarian Academy of Sciences (MTA) and also from the Department of Science and Technology of Shaanxi Province where XIOPM.

- Prof. Tasawar Hayat, Secretary-General of the Pakistan Academy of Sciences, gave the Opening Ceremony Remarks in the inaugural session.
- Prof. M. Aslam Baig gave a presentation on Laser Produced Plasma – A Tool for Optical Emission Spectroscopy.
- Prof. M. Qasim Jan was the moderator of one of the Technical Sessions.

24th General Assembly Meeting of the Islamic World Academy of Sciences (IAS) October 18-19, 2022

Under the high patronage of His Majesty King Mohammed VI, King of Morocco, the IAS convened its 23rd international scientific conference in Rabat, Morocco during October 18-19, 2022. The theme of the conference was Science, Technology and Innovation Under Ever Changing Global Events.

The meeting was held at the Academy of the Kingdom of Morocco in Rabat, the IAS Conference was an open activity in which over 100 local and international

participants attended the activity from 20 countries. After the conference, the 24th meeting of the General Assembly of the IAS as well as the 44th meeting of the IAS Council were convened.

Prof. Tasawar Hayat (Sec. Gen. PAS), Prof. Qasim Jan, Prof. Raheel Qamar, and Prof. Zabta Shinwari also attended the 24th General Assembly Meeting of the Islamic World Academy of Sciences.



Two PAS Fellows Elected Unanimously as Vice President and Secretary General of the Islamic World Academy of Sciences (IAS)

In the 24th General Assembly Meeting of the Islamic World Academy of Sciences (IAS) held during the IAS 23rd Conference in Rabat, Morocco, two Fellows of the Pakistan Academy of Sciences Prof. Zabta K. Shinwari and Prof. Tasawar Hayat got elected unanimously as Vice President and Secretary General respectively.

Pakistan Academy of Sciences congratulates Prof. Zabta K. Shinwari and Prof. Tasawar Hayat.



President of Pakistan conferred the prestigious Civil Award of 'Sitara-i-Imtiaz' to Prof. Dr. Muhammad Ali, FPAS

President of Pakistan, on the occasion of the country's 75th Independence Day, (August 14, 2022) has conferred the prestigious Civil Award of Sitara-i-Imtiaz to Prof. Dr. Muhammad Ali, Fellow PAS and Ex-Vice Chancellor, Quaid-i-Azam University, Islamabad in recognition of his outstanding contributions in the field of Education.

The investiture ceremony of the Award will take place on Pakistan Day, March 23, 2023.



Fifth Nobel Fest at Astana, Kazakhstan October 2022

Nobel Fest was held in Astana in October, 2022 which was aimed to bring together the young scientists from six countries, including Azerbaijan, China, Germany, Turkey, Pakistan, and Uzbekistan. It was the largest international non-profit technological and scientific-educational event held for the fifth time. Over the years, around half a million IT professionals, engineers, astronomers, and other experts from 200 countries have taken part in online discussions. The festival aims to make global science accessible in every corner of the world.

Prof. Dr. M. Iqbal Choudhary Coordinator General of COMSTECH and Fellow PAS had spoken at the inaugural ceremony of the Fifth Nobel Fest as the keynote speaker in Astana. He as the coordinator

general of COMSTECH also announced that the Sixth Nobel Fest would be organized in 2023 with the collaboration of COMSTECH.



17th National Conference of Weed Science Society October 27-28, 2022

The 17th National Conference of Weed Science Society was held in the Institute of Agriculture Sciences, University of Punjab, Lahore (October 27-28, 2022). Prof. Dr. Khan Bahadar Marwat (Secretary KP Chapter, PAS, and President of Weed Science Society of Pakistan) was the Chief Organizer of the Conference.

The theme of the conference was "Food Security through sustainable vegetation management". Prof. Dr. Muhammad Saleem Haidar, Dean Faculty of Agriculture Sciences, University of Punjab, Lahore welcomed all the worthy guests and highlighted the importance of weed control and management in Agriculture. President of the weed science society of Pakistan, Prof. Dr. Khan Bahadur Marwat elaborated the role of society by discussing the progress made so far in the last 16 national/international conferences

and endorsed the role of weeds in economic crops along with the utilization of their potential in the modern world.

The Chief Guest, Chairman Punjab Higher Education Commission (PHEC) Prof. Dr. Shahid Munir expressed his broad vision and appreciated the efforts of this joint venture. The invited weed scientists from all over Pakistan discussed many strategies related to the control and eradication of weeds in all agricultural crops. Weeds are a global threat to agriculture and the economy of farmers so their eradication from fields in an effective way is imperative. New methods for killing weeds and their role in environmental sustainability were discussed. Use of weeds as bio-fertilizers and bio-fuels were recommended.



Prof. Dr. Syed M. Qaim (Foreign FPAS) co-organized an Autumn College in Seoul, South Korea October 17 - November 4, 2022

Prof. Dr. h. c. mult. Syed M. Qaim of the Forschungszentrum Juelich (FZJ) and the University of Cologne, Germany, Foreign Fellow of PAS and an Honorary Professor at the Government College University Lahore (GCUL), Pakistan, co-organized an International Autumn College on Radionuclides and Radiopharmaceuticals from October 17 to November 4, 2022 in Seoul, South Korea. Sponsored by the International Atomic Energy Agency (IAEA) in Vienna and the World Council on Isotopes (WCI) in Seoul, the event was financed mostly by the South Korean Government and it was held in the form of an e-Learning Course. A total of 19 radiochemists

participated, mostly from countries where recently Cyclotron and Positron Emission Tomography (PET) have been established.

As Chair of the Education and Training Committee of WCI, Prof. Qaim welcomed the participants, gave several technical lectures, and worked as one of the two Tutors of the Course. The Course was well received by the participants who are actively engaged in this fast-expanding medical organ imaging technique. Several groups in Pakistan are also working in this modern field.

Participation of Dr. Shujaul Mulk Khan (Member, PAS) in the world's largest event on Slow Food 2022 at Turin, Italy September 22 – 26, 2022

Dr. Shujaul Mulk Khan Associate Professor of Plant Sciences, Quaid-i-Azam University Islamabad Pakistan, Member Pakistan Academy of Sciences and President International Ethnobiological Society participated in the World's largest event on Slow Food 'the 14th Terra Madre Salone del Gusto 2022' that was held at Turin Italy. He also presented his inspirational speech at the congress of the International Society of Gastronomic Sciences and Studies (ISGSS) organized by the University of Turin and the University of Gastronomic Sciences Pollenzo Italy. The slow food event hosted more than 20000 participants from 160 countries while the numbers of presenters and participants – mostly intellectuals in the ISGSS event were more than 250 from 40 different countries. Dr. Khan also convened the South

and Central Asian Network meeting and participated in the Asia Pacific meeting to discuss the regional collaboration for enhancing clean, pure, and slow food for the inhabitants of the region and achieving the SDG goal of "No Hunger".



Obituary

Prof. Dr. Muhammad Zakria Butt 1949 - 2022

It is with profound grief to inform all colleagues, friends, associates and well wishers that Prof. Dr. Muhammad Zakria Butt, Fellow of the Pakistan Academy of Sciences (Elected 1997), and a versatile Physicist, breathed his last on September 9, 2022 in Lahore. Our thoughts and heartfelt condolences go out to the family, friends and colleagues around the world. May ALLAH (SWT) give strength to his family, dears and nears to bear this great and irreparable loss and reward Dr. Zakria Butt for his services to the nation and bless him the highest place in Jannah (Aameen).



The 2022 Nobel Laureates

Every year in October, committees in Sweden and Norway award six Nobel Prizes, each recognizing a groundbreaking contribution by an individual or organization in a specific field.

Nobel Prize in Physics

The prize for physics was shared by three men, Alain Aspect, John F. Clauser and Anton Zeilinger, for their work in quantum technology “for experiments with

entangled photons, establishing the violation of Bell inequalities and pioneering quantum information science”.



From left: Alain Aspect, John F. Clauser, and Anton Zeilinger

Nobel Prize in Chemistry

Carolyn R. Bertozzi Morten Meldal and K. Barry Sharpless shared the award for chemistry for the development of click chemistry and bio-orthogonal chemistry. The three chemists have been working independently since 2000 to create functional molecules that have “led to a revolution in how the

chemists think about linking molecules together,”.

Dr. Bertozzi is the eighth woman to be awarded the prize, and Dr. Sharpless is the fifth scientist to be honored with two Nobels.



From left: Carolyn R. Bertozzi, Morten Meldal and K. Barry Sharpless

Nobel Prize in Physiology/Medicine

Svante Pääbo was awarded the year’s first prize, for physiology or medicine. Dr. Pääbo, a Swedish geneticist, won for his discoveries concerning the genomes of extinct hominins and human evolution. He won for his work in retrieving genetic material from 40,000-year-old bones, producing a complete Neanderthal genome and initiating the field of ancient DNA studies.



Nobel Prize in Literature

The Nobel Prize for literature was awarded to the French novelist Annie Ernaux.

Mats Malm, the permanent secretary of the Swedish Academy, lauded the “courage and clinical acuity with which she uncovers the roots, estrangements and collective restraints of personal memory.” Ms. Ernaux, 82, is the 17th female writer to have won the prize since it was formed in 1901.



Nobel Prize in Peace

The Nobel Prize for Peace was shared by Ales Bialiatski, a jailed Belarusian activist; Memorial, a Russian organization; and the Center for Civil Liberties in Ukraine.

“The Peace Prize laureates represent civil society in their home countries,” Berit Reiss-Andersen, the chair of the Norwegian Nobel Committee, said in announcing the awards. “They have for many years promoted the right to criticize power and protect the fundamental rights of citizens.”

The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2022

the prize for economic science was awarded to Ben S. Bernanke, the former Federal Reserve chair, and two other academics for their research into banks and financial crises.

Douglas W. Diamond, an economist at the University of Chicago, and Philip H. Dybvig at Washington University in St. Louis won the prize alongside Mr. Bernanke, who is now at the Brookings Institution in Washington.

The economics award, among the highest honors in the field, is not, technically, a Nobel Prize. It is called

The committee said it had chosen the three laureates because it wanted to honor the champions of “human rights, democracy and peaceful co-existence” in the neighboring countries of Belarus, Russia and Ukraine.



the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel because it wasn't among the original categories that Alfred Nobel set out in his will in 1895.



From left: Ben Bernanke, Douglas Diamond and Philip Dybvig.

During the pandemic, the Nobels made adjustments. In 2020 and 2021, some events were canceled in favor of a digital ceremony for the winners, and the Oslo ceremony for the peace prize was smaller than in most years, with a limited audience. This year, laureates will receive their Nobel Prize medals and diplomas in Stockholm in December, the organization said, and winners from the previous two years will also be invited.