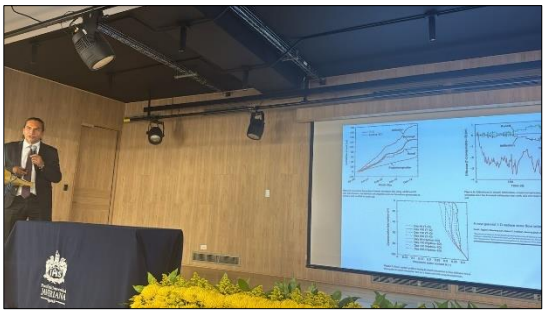
GROUNDWATER TECHNICAL WEEK – STAS2024 - COLOMBIA

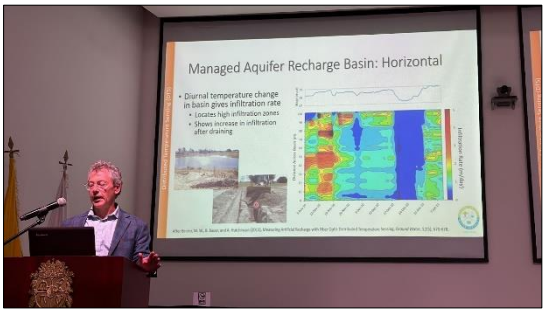
The Groundwater Technical Week 2024 was the result of the joint effort and alliance between three of the country's main universities, and it had a free and open access nature for all students in Colombia and for professional associates of the Colombian Association of Hydrogeologists - ACH, IAHR, InterPore, and NGWA, associations that actively collaborated with the event organization. The technical week was held on March 18, 19, and 20, 2024, in the city of Bogotá, at the campuses of the Universidad de los Andes, Pontificia Universidad Javeriana, and Universidad Nacional de Colombia, bringing together experts from academia, industry, and public and private governmental entities. The event featured the Darcy Lecture Series from the National Ground Water Association (NGWA) at the Universidad Nacional de Colombia and Universidad de los Andes, with the participation of Professor Matthew W. Becker, PhD, Conrey Chair in Hydrogeology and Professor of Earth Sciences at California State University, Long Beach, USA.

The event was inaugurated with sessions by Geologist Oscar Meneses, President of the ACH, and Professor Juan Pablo Bocarejo, Director of the Department of Civil and Environmental Engineering at the Universidad de los Andes. On the first day, topics such as the analysis of complex problems in hydrogeology using spreadsheets, the management and challenges of the Bogotá aqueduct from the perspective of applied hydrology, and groundwater exploration from geophysical data were addressed. Results of studies on the relationship between groundwater and urban infrastructure and the use of satellite and remote sensing data for groundwater storage studies were presented. The central session of the day was the Darcy Lecture presented by Professor Becker titled "**How groundwater impacts the people and ecosystems of the south pacific islands**."

The second day included a panel discussion with directors and representatives from Colombia's main governmental entities in the study, exploration, management, and protection of water resources (Ministry of Environment and Sustainable Development - MADS, Colombian Geological Service - SGC, National Authority of Environmental Licenses - ANLA, Institute of Hydrology, Meteorology, and Environmental Studies - IDEAM), and talks on tools for groundwater management in Colombia, handling hydrological data in environmental licensing, and the relationships between groundwater and surface waters. Topics such as hydrogeochemistry and microbiology of groundwater, isotopic composition of precipitation in different basins, and the response of inorganic nutrients dissolved during extreme weather events were also addressed.

The third day of the event focused on the presentation of comprehensive water management models in projects and hydrogeological studies within the hydrocarbon industry. Research on fluvial geodynamics, lithogeochemistry, geological-geophysical and hydrogeological models, and the management of poly-perfluoroalkyl substances in groundwater were presented. Additionally, the second session of the DARCY Conference by Professor Becker was presented, with his lecture titled "**Fiber Optic Distributed Sensing as a Window on Subsurface Flow**."



The event concluded with a closing ceremony featuring professors from the Universidad Nacional de Colombia, Argenis Bonilla, Vice Dean of Research at the Faculty of Sciences, Camilo Cortés, Vice Dean of Research and Extension at the Faculty of Engineering, and Engineer John Cerón, Secretary of ACH. Their words highlighted the importance of continuing to work on groundwater research and management, emphasizing the commitment of the universities and organizations involved in the event.


In summary, the Groundwater Technical Week 2024 was a comprehensive event that offered a wide variety of topics and presentations reflecting the importance and diversity of challenges in the field of hydrogeology and groundwater management. The participation of experts from different areas

and the variety of approaches presented highlight the need to continue researching and developing innovative solutions to ensure the sustainability and proper management of this vital resource. For more information on the event, please visit the website https://sites.google.com/view/stas2024/