

# iCRAG 2019

Resources for a Sustainable Future

Monday 2nd December 2019

Croke Park, Jones' Rd, Drumcondra, Dublin 3

## Programme

iCRAG 2019 - Resources for a Sustainable Future	
08.00-09.00	Registration in the Hogan Mezzanine (Level 4), Croke Park Tea and Coffee
<b>Opening Session</b>	
<b>Mezzanine I &amp; II</b>	
09.00-09.05	<b>Welcome</b> - Professor John Thompson, PetraScience Consultants (Master of Ceremonies)
09.05-09.25	<b>iCRAG: Solutions for Sustainability</b> - Professor Murray Hitzman, Director of iCRAG
09.25-09.55	<b>Keynote Address: Geoscience, Earth Change, and Society</b> - Dr Elizabeth Eide, Director - Board on Earth Sciences and Resources, The National Academies of Sciences, Engineering and Medicine
09.55-10.30	<b>Keynote Address: Responsible Mining for a Sustainable Future?</b> - Dr Sarah Gordon, CEO - Satarla
10.30-11.00	<i>Poster Session with Refreshments</i>
<b>iCRAG: Research for a Sustainable Future</b>	
<b>Mezzanine I &amp; II</b>	
	An overview of the key outcomes and impacts from each of iCRAG's research challenges including new challenges which have been added as iCRAG continues to evolve.
11.00-11.15	<b>iCRAG Groundwater: Advances in Understanding Water Resources for both Human Supply and Ecohydrological Habitats</b> - Professor Laurence Gill (TCD)
11.15-11.30	<b>iCRAG Raw Materials: Improved Models for the Origin and Discovery of Mineral and Aggregate Deposits</b> - Professor John Walsh (UCD)
11.30-11.45	<b>iCRAG Geomarine: Safeguarding Marine Resources for Sustainable Development</b> - Professor Andy Wheeler (UCC)
11.45-12.00	<b>iCRAG Energy Security: Providing Insight into Resources, Risks and Long-term Environmental Change</b> - Dr Shane Tyrrell (NUIG)
12.00-12.15	<b>iCRAG Geophysics: Enabling Methodologies for a Sustainable Future</b> - Professor Chris Bean (DIAS)
12.15-12.30	<b>Public Perception and Acceptance of the Extractive Industry in Ireland</b> - Dr Geertje Schuitema (UCD)
12.30-12.45	<b>Testing Negative C Emission Technology via Enhanced Chemical Weathering in an Irish Agricultural Context</b> - Professor Jennifer McElwain (TCD)
12.45-13.00	<b>iCRAG Geohazards: Engineering Offshore Solutions</b> - Dr Mark Coughlan (UCD)
13.00-13.15	<b>iCRAG 2019 Lightning Talk Competition</b> - Researchers will present their research in just 90 seconds each!
13.15-14.15	<i>Poster Session with Lunch</i>
<b>iCRAG: Technical Snapshots</b>	
	Four parallel sessions giving technical snapshots from a range of iCRAG research projects.
	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p> <b>Earth's Resources: Raw Materials</b> <b>Mezzanine I</b></p> </div> <div style="width: 45%;"> <p> <b>Earth's Resources: Energy Security</b> <b>Mezzanine II</b></p> </div> </div>
14.15-14.30	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b>Expanding the Explorer's Toolbox: Geochemical Applications for Earth Resources</b> - Dr Sean Johnson (UCD)</p> </div> <div style="width: 45%;"> <p><b>From Rifting to Hyperextension: The Upper Jurassic - Cretaceous Succession of the Porcupine Basin, Irish Atlantic Margin</b> - Lewis Whiting (UCD)</p> </div> </div>
14.30-14.45	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b>Integrated 3D Geological Modelling and Data Analysis of the Irish Carboniferous</b> - Dr Koen Torremans (UCD)</p> </div> <div style="width: 45%;"> <p><b>Structural and Kinematic Analysis of the Slyne Basin: Exploring the Links between Structural Evolution, Salt Tectonics and Trap Formation</b> - Conor O'Sullivan (UCD)</p> </div> </div>
14.45-15.00	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b>Structural Framework of the Irish Lower Carboniferous and the Kinematics of Associated Faulting</b> - Dr John Conneally (UCD)</p> </div> <div style="width: 45%;"> <p><b>Cenozoic Exhumation in the Celtic Sea Basins (Offshore Ireland) from a Multidisciplinary Approach</b> - Pablo Rodriguez Salgado (UCD)</p> </div> </div>
15.00-15.15	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b>The 'Blue Book' Revamped: Towards a Tectono-stratigraphic Framework of the Tournaisian &amp; Viséan of Ireland</b> - Robert Doyle (UCD)</p> </div> <div style="width: 45%;"> <p><b>Sediment Supply to Irish Carboniferous Basins: Insights into Ancient Climate and Landscapes</b> - Martin Nauton-Fourteu (NUIG)</p> </div> </div>
15.15-15.30	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b>Pathfinders Towards Mineralization: The Application of Mineral Chemistry and Isotope Analysis to Exploration</b> - Aileen Doran (UCD)</p> </div> <div style="width: 45%;"> <p><b>Hierarchical Compression-based Reservoir Modelling: A New Workflow for Realistic Reservoir Models</b> - Deirdre Walsh (UCD)</p> </div> </div>
15.30-15.45	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b>Lithium Pegmatites in Ireland: A Storehouse for Critical Metals</b> - David Kaeter (UCD)</p> </div> <div style="width: 45%;"> <p><b>Understanding and Modelling the Shallow Plumbing System of Geological Fluids</b> - Dr Tom Manococchi (UCD)</p> </div> </div>

Parallel Sessions

iCRAG: Technical Snapshots (continued)	
	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p> <b>Earth System Change</b> Davin Suite</p> </div> <div style="width: 45%; text-align: right;"> <p> <b>Earth Science in Society</b> Nally Suite</p> </div> </div>
14.15-14.30	<div style="display: flex;"> <div style="width: 45%;"> <p><b>Insights on the Passive Ocean Seismic Noise Generation, Offshore Ireland</b> - Dr Florian Le Pape (DIAS)</p> </div> <div style="width: 5%; text-align: center; font-size: 8px; writing-mode: vertical-rl; transform: rotate(180deg);">Parallel Sessions</div> <div style="width: 45%;"> <p><b>Building Materials: Expanding Potential</b> - Dr Robbie Goodhue (TCD)</p> </div> </div>
14.30-14.45	<div style="display: flex;"> <div style="width: 45%;"> <p><b>Assessment of Ocean Noise in the Irish Offshore: Tracking Anthropogenic Influence</b> - Eoghan Daly (NUIG)</p> </div> <div style="width: 45%;"> <p><b>Underground Space Technology: From Past to Future</b> - Dr Zili Li (UCC)</p> </div> </div>
14.45-15.00	<div style="display: flex;"> <div style="width: 45%;"> <p><b>Understanding the Geotechnical and Hydrological Response of Intact Upland Blanket Bog to Wind Farm Construction: A Detailed Case Study in Co, Cork, Ireland</b> - Eileen McCarthy (UCC)</p> </div> <div style="width: 45%;"> <p><b>GeoPlan: A New Engagement Framework for Decision-making on Coastal Geohazards</b> - Dr Mick Lennon (UCD)</p> </div> </div>
15.00-15.15	<div style="display: flex;"> <div style="width: 45%;"> <p><b>Uncovering Karst Groundwater: A 3D Hydrogeological Modelling of an Irish Karst System</b> - Dr Lea Duran (TCD)</p> </div> <div style="width: 45%;"> <p><b>Fostering Sustainable Communities with Improved Public Health through Knowledge of Radon Risk</b> - Dr Quentin Crowley (TCD)</p> </div> </div>
15.15-15.30	<div style="display: flex;"> <div style="width: 45%;"> <p><b>Geogenic Contamination of Irish Groundwater</b> - Alex Russell (UCD)</p> </div> <div style="width: 45%;"> <p><b>Engaging for Our Sustainable Future</b> - Elspeth Wallace (UCD)</p> </div> </div>
15.30-15.45	<div style="display: flex;"> <div style="width: 45%;"> <p><b>Groundwater Resources as Reservoirs for Antimicrobial Resistance</b> - Luisa Andrade (UCC)</p> </div> <div style="width: 45%;"> <p><b>Fostering Dialogue: Comparing Geoscientists' and Non-geoscientists' Thoughts and Feelings About Geoscience</b> - Dr Anthea Lacchia (UCD)</p> </div> </div>
15.45-16.15	<p><i>Poster Session with Refreshments</i></p> <p>Mezzanine I &amp; II</p>
16.15-17.00	<p><b>Keynote Address: The Myopia of a Carbon-Only Lens</b> - Professor Scott Tinker, Director - Bureau of Economic Geology, The University of Texas at Austin</p>
<p><b>Panel Discussion: Challenges and Opportunities for iCRAG Going Forward</b></p> <p>Mezzanine I &amp; II</p>	
17.00-17.30	<p>A summary of the highlights from each session of the day, closing with panelists giving their insights into the key challenges and opportunities facing iCRAG going forward.</p>
17.30-19.00	<p><i>Poster Session with Refreshments</i></p>

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