

# Program Schedule (P&G 2025)

IS: Invited Speaker, CT: Contributed Talk.

## DAY 1: Monday, December 8, 2025

(1 Invited & 18 Contributed Talks)

08:00-08:45	<b>Registration (Lotus Ballroom Foyer)</b>		
08:45-09:00	<b>Opening Remarks (AEMMG President &amp; LOC Chair)</b>		
09:00-09:30 25min+4min Q&A	IS	<b>Farhang Radjai</b> Univ Montpellier, France, (Chair: Prabhu R Nott, IISc Bengaluru, India)	Stress transmission and fabric states in granular materials
Session-1	<b>S1: Rheology and Constitutive Modelling</b>		
	<b>(Chairs: Elisabeth Guazzelli &amp; Prabhu Nott)</b>		
09:30-09:45	CT	<b>Carmen Lee</b> North Carolina State Univ, USA	The Stress-Force-Fabric relation across shear bands
09:45-10:00	CT	<b>Ravi Gautam</b> IISc Bengaluru, India	Microstructural anisotropy as the origin of dilatancy
10:00-10:15	CT	<b>Fu-Ling Yang</b> National Taiwan Univ, Taiwan	Transport mechanism in a photoelastic chute flow due to the evolution of force networks
10:15-10:30	CT	<b>Max Winkelmann</b> Univ of Twente, Netherlands	The influence of the inter-particle sliding, rolling and torsion resistance on the skew-symmetric stress of sheared granular materials
10:30-11:00	<b>Tea/Coffee with Snacks (Lawn adjacent to Conference Hall)</b>		
Session-2	<b>S2: Particle-based Numerical Methods</b>		
	<b>(Chairs: Raul Cruz Hidalgo &amp; Thomas Weinhart )</b>		
11:00-11:15	CT	<b>T.K. Nguyen (Gael Combe)</b> Hanoi Univ, Vietnam (Univ Grenoble Alpes, France)	Domain heterogeneities in geomaterial modeling: integrating multi-scale FEMxDEM and second-gradient approaches
11:15-11:30	CT	<b>Sayali V Chaudhary</b> National Chemical Lab, Pune, India	Shear flow of lubricant-coated particles
11:30-11:45	CT	<b>Laura Cote Martinez</b> TU Delft, Netherlands	A FEM-DEM model for immersed granular flows: from unresolved to semi-resolved scales
11:45-12:00	CT	<b>Dhairya R Vyas</b> Northwestern Univ, USA	Impact of an improved velocity-Verlet scheme on DEM simulations
12:00-12:45	<b>Flash Talk I (Chairs: Mousumi Mukherjee &amp; Ashish Bhateja)</b>		
	<b>Posters number 1-42 (1 slide per poster in 1 minute)</b>		

12:45-14:00	<b>Lunch</b>		
Session-3	<b>S3: Kinetic Theory and Granular Gas</b>		
	<b>(Chairs: Thorsten Pöschel &amp; Subir Das)</b>		
14:00-14:15	CT	<b>Satoshi Takada</b> Tokyo Univ Agriculture & Tech, Japan	Discontinuous shear thickening of a moderately dense inertial suspension of hydrodynamically interacting frictionless soft particles
14:15-14:30	CT	<b>Francisco Vega Reyes</b> Univ de Extremadura, Spain	Memory effects in a vibrated thin granular layer
14:30-14:45	CT	<b>Saikat Saha</b> IIT Roorkee (& JNCASR Bengaluru), India	Nonlinear hydrodynamic theory for a dilute gas-solid suspension
14:45-15:00	CT	<b>Fahad Puthalath</b> DLR, Cologne, Germany	Magnetic shaking distributes granular particles homogeneously in micro gravity
15:00-15:30	<b>Flash Talk II (Chairs: Priyanka Shukla &amp; Rajaram Lakkaraju)</b>		
	<b>Poster number 43-72 (1 slide per poster in 1 minute))</b>		
15:30-16:30	<b>Poster Session-1 (at IRIS &amp; IVY Ballrooms), with Tea/Coffee &amp; Cookies</b>		
Session-4	<b>S4: Experimental Methods</b>		
	<b>(Chairs: Itai Einav &amp; Karen Daniels)</b>		
16:30-16:45	CT	<b>Jan Gabriel</b> Deutsches Zentrum für Luft und Raumfahrt, Germany	Dynamic light scattering on agitated granular media
16:45-17:00	CT	<b>Cheng-Hsi Hsiao</b> Univ of Texas at Austin, USA	From images to properties: a NeRF-driven framework for granular material parameter inversion
17:00-17:15	CT	<b>Manasa Bhat</b> IISc Bengaluru, India	Quantifying microstructure and fabric chains in granular materials through X-ray CT experiment
17:15-17:30	CT	<b>Pushpraj Mandloi</b> Univ of New South Wales, Australia	Characterisation of metal particles in porous sand using spectral induced polarisation
Session-4A	<b>S4A: Geomaterials</b>		
	<b>(Chair: Takashi Matsushima &amp; Arghya Das)</b>		
17:30-17:45	CT	<b>Michail Komodromos</b> Univ Grenoble Alpes, France	Analysis of two-dimensional displacement fluctuations in granular media
17:45-18:00	CT	<b>Mousumi Mukherjee</b> IIT Mandi, India	Assessment of 3D strength criteria of sand in the presence of strain localization
18:30-20:00	<b>Welcome Reception &amp; High Tea (Beverages with Snacks)</b>		

## DAY 2: Tuesday, December 9, 2025

(2 Invited & 19 Contributed Talks + 2 Short-Talks from Sponsors)

08:00-08:45	<b>Registration (Near Lotus Ballroom)</b>		
08:45-09:15, 25min+4min Q&A	IS	<b>Devang Khakhar,</b> IIT Bombay, India, (Chair: Anugrah Singh, IIT Guwahati, India)	Computational and experimental analyses of granular flow in hoppers
Session-5	<b>S5: Polydispersity, Segregation and Patterns</b>		
	<b>(Chairs: Manaswita Bose &amp; Abraham Medina )</b>		
9:15-9:30	CT	<b>Nicolas Taberlet</b> ENS Lyon, France	Oscillations of a slider dragged on a granular bed
9:30-9:45	CT	<b>S Joseph Antony</b> Univ of Leeds, UK	Flow behaviour of granular materials: modelling wall adhesion and Its impact on grain segregation
9:45-10:00	CT	<b>Nithin Nallani</b> IIT Kanpur, India	Horizontal size-based segregation in a vertically oscillating box with a sloped bottom
10:00-10:15	CT	<b>Priyanka Shukla</b> IIT Madras, India	Harmonic resonances in granular plane Couette flow
10:15-10:30	CT	<b>Anugrah Singh</b> IIT Guwahati, India	Shear induced migration during suspension transport in regular and random porous media
10:30-11:30	<b>Poster Session-2 (at IRIS &amp; IVY Ballrooms), with Tea/Coffee &amp; Snacks</b>		
Session-6	<b>S6: Geophysical and Planetary Processes</b>		
	<b>(Chairs: Abdoulaye Fall &amp; Vanessa Magnanimo )</b>		
11:30-11:45	CT	<b>Alexandre Valance</b> Univ of Rennes, France	Aeolian transport of cohesive sand
11:45-12:00	CT	<b>Abhijit Sinha</b> TIFR Hyderabad, India	Obstacle-induced shape transformations of granular arches in a 3D silo
12:00-12:15	CT	<b>Sohanjit Ghosh</b> Johns Hopkins Univ, USA	Pore collapse during impacts in granular materials
12:15-12:30	CT	<b>Prity Dhanai</b> IIT Delhi, India	Micromechanical investigation of particle shape effects on dry granular flow interaction with mitigation structures
12:30-12:45	CT	<b>Anne Mangeney</b> Institut de Physique du Globe de Paris, France	A depth-averaged grain-fluid model with dilatancy and an upper-solid layer
12:45-14:00	<b>Lunch</b>		
Session-7	<b>S7: Particle-based Numerical Methods</b>		
	<b>(Chairs: Stefan Luding &amp; Manojit Ghosh)</b>		
14:00-14:15	CT	<b>Vanessa Magnanimo</b> Univ Twente, Netherlands	Wet granulation multiscale modelling accelerated via CG-DEM

14:15-14:30	CT	<b>Jacopo Bilotto</b> EPFL, Switzerland	Numerical study of simple shear dense granular flow of frictional elongated and flattened particles
14:30-14:45	CT	<b>Alok Tiwari</b> University of Sheffield, UK	Modeling the calendaring process of lithium-ion battery electrodes using DEM
14:45-15:00	CT	<b>Yuri D. Sobral</b> Univ de Brasilia, Brazil	A regularised version of the Kuwabara-Kono force scheme for 2nd-order convergence in DEM simulations of granular materials
15:00-15:15	CT	<b>Dalila Vescovi</b> Politecnico di Milano, Italy	Pressure-controlled granular shear flows between bumpy planes
15:15-15:30	CT	<b>Anurag Tripathi</b> IIT Kanpur, India	Growth of a wet agglomerate rolling down an inclined granular bed
15:30-16:30	<b>Poster Session-3 (at IRIS &amp; IVY Ballrooms), with Tea/Coffee &amp; Cookies</b>		
16:30 - 17:00 25min+4min QA	IS	<b>Axelle Amon</b> Univ of Rennes, France (Chair: Jean-Noel Roux, Univ Gustave Eiffel, Paris )	Creep response of granular materials
Session-8	<b>S8: Experimental Methods</b>		
	<b>(Chairs: Cino Viggiani &amp; Ted Brzinski )</b>		
17:00-17:15	CT	<b>Itai Einav</b> University of Sydney, Australia	Using X-ray rheography to estimate the 3D field of inertial numbers in flowing granular media
17:15-17:30	CT	<b>Abraham Medina</b> Instituto Politecnico Nacional, Mexico	Bursting cylindrical sand balloons
17:30-17:45	CT	<b>Mathis Thouret</b> IATE, Univ of Montpellier, France	Study on the unsaturated grinding of quartz sand
17:15-18:00	CT	<b>Luis Sabogal</b> Purdue Univ, USA	Macroscale signatures of crushing from resonant column tests
Session-Sponsor	<b>Sponsors (Chairs: Samik Nag and Arghya Das)</b>		
18:00-18:07	CT	<b>Jay Aglawe</b> ROCKMECH IT and ITASCA Software	Numerical modelling of geomaterials
18:08-18:15	CT	<b>Mohan S Nainegali</b> ALTAIR India and GCC	From grains to powders: DEM-based simulation tools for research and industrial processes
18:30-20:30	<b>AEMMG Board Meeting</b>		

## DAY: 3, Wednesday, December 10, 2025

(2 Invited & 20 Contributed Talks)

08:45-09:15 25min+4min Q&A	IS	<b>Catherine O'Sullivan</b> Imperial College London (Chair: Stefan Luding, Univ of Twente, Netherlands)	Coupled phenomena in soil: examples of insights obtained from multi-physics particle-scale simulations
Session-9	<b>S9: Particulate Multiphase Flows</b>		
	<b>(Chairs: Jean-Noel Roux &amp; Rajesh Dave )</b>		
09:15-09:30	CT	<b>Manojit Ghosh</b> JNCASR, India (& Univ Bremen, Germany)	Transition to turbulence in suspension Taylor-Couette flow
09:30-09:45	CT	<b>Mohammad Fazli</b> Monash Univ, Australia	Fully-resolved modelling of suspension flows: an overview
09:45-10:00	CT	<b>Gamaliel J. Dewanto</b> Univ of Electro-Communications, Tokyo, Japan	From the micromechanics of Darcy's law to particle-laden flows in porous media
10:00-10:15	CT	<b>Pierre Philippe</b> INRAE, Aix Marseille Univ, France	Fluidization in cemented and uncemented granular soils with application to suction-assisted bucket embedment
10:15-10:35	<b>Flash Talk III (Chairs: Chairs: Anki Reddy and Animesh Pandey)</b>		
	<b>Poster number 73-96 (1 slide per Poster in 1 minute)</b>		
10:35-11:30	<b>Poster Session-4 (at IRIS &amp; IVY Ballrooms), with Tea/Coffee &amp; Snacks</b>		
Session-10	<b>S10: Jamming and Rigidity</b>		
	<b>(Chairs: Bulbul Chakraborty &amp; Satoshi Takada)</b>		
11:30-11:45	CT	<b>Kiwamu Yoshii</b> Nagoya Univ, Japan	Yielding transition of stress controlled granular materials near jamming
11:45-12:00	CT	<b>Vasco Braz</b> Universidade de Lisboa, Portugal	Ranked percolation model for the caking time of amorphous molecular powders
12:00-12:15	CT	<b>Calixtro Yanqui</b> National Univ of Saint Agustine, Peru	Specific volume of the most probable disordered sphere packings
Session-10A	<b>S10A: Granular Liquid (Chair: Joseph Antony)</b>		
12:15-12:30	CT	<b>Raul Cruz Hidalgo</b> Univ Navara, Spain	Forces on a sphere suspended in flowing granulate
12:30-12:45	CT	<b>K. Anki Reddy</b> IIT Tirupati, India	Role of constituents of a granular medium on the lift force experienced by a translating and rotating intruder
12:45-14:00	<b>Lunch</b>		

Session-11	<b>S11: Rheology and Constitutive Modelling</b>		
	<b>(Chairs: Prabhu Nott &amp; Anne Mangeney)</b>		
14:00-14:15	CT	<b>Elisabeth Guazzelli</b> Univ of Paris, France	Rheology of dense suspensions of non-Brownian soft particles across flow regimes
14:15-14:30	CT	<b>Gautam Vatsa</b> IISc Bengaluru, India	Continuum modeling of shear dilatancy-induced secondary flow in granular media
14:30-14:45	CT	<b>Pappu Acharya</b> Univ Grenoble Alps, France	Modelling evolution of flow-induced anisotropy of concentrated suspensions
14:45-15:00	CT	<b>Retief Lubbe</b> Univ of Twente, Netherlands	A comparative study of granular solid-like and fluid-like constitutive laws
15:00-15:15	CT	<b>Jean-Noel Roux</b> Univ Gustave Eiffel, France	Loose, cohesive granular assemblies: constitutive law and microstructure evolution in quasistatic isotropic compression
15:15-15:30	CT	<b>Dongyun He</b> Tokyo Univ of Agriculture & Tech, Japan	Formation of granular jets
15:30-16:30	<b>Poster Session-5 (at IRIS &amp; IVY Ballrooms), with Tea/Coffee &amp; Cookies</b>		
16:30-17:00 25min+4min Q&A	IS	<b>Ishan Sharma</b> IIT Kanpur, India, (Chair: Sovan Lal Das, IIT Palakkad, India)	Regolith dynamics on small bodies in the solar system
Session-12	<b>S12: Geophysical &amp; Planetary Processes</b>		
	<b>(Chairs: Alexander Valance &amp; Peidong Yu)</b>		
17:00-17:15	CT	<b>Kerstin Nordstrom</b> Mount Holyoke, MA, USA	Pressure waves during granular flows in varying gravity environments
17:15-17:30	CT	<b>Prasad Sonar</b> Central Food Tech. Res. Inst, Mysuru, India (& Univ. of Osaka, Japan)	Thrust analysis of rocket landing on planetary granular surfaces
17:30-17:45	CT	<b>Tamas Borzsonyi</b> WIGNER Research Centre, Budapest, Hungary	Effect of particle shape on silo discharge
17:45-18:00	CT	<b>Sounak Das</b> IIT Kanpur, India	An experimental study on drag forces on obstacles in granular flow
19:00-21:30	<b>Banquet Dinner (at Lotus Ballroom, Novotel)</b>		

## DAY 4: Thursday, December 11, 2025

(2 Invited & 9 Contributed Talks)

08:45-09:15 25min+4min Q&A	IS	<b>Benjy Marks</b> University of Sydney, Australia (Chair: Cino Viggiani, Univ of Grenoble Alps, France)	Heterarchical granular dynamics: a state of the art
Session-13	<b>S13: Geomaterials</b>		
	<b>(Chairs: Saeid Nezamabadi &amp; Matt Evans)</b>		
09:15-09:30	CT	<b>Manuel Cardenas Barrantes</b> Polytechnique Montréal, Canada	Liquefaction of crushable granular media: a multiscale numerical analysis
09:30-09:45	CT	<b>Adil Nazir</b> IIT Mandi, India	Undrained shearing response of loose sand subjected to different strain paths addressing evolution of fabric anisotropy and non-coaxiality
09:45-10:00	CT	<b>Takashi Matsushima</b> University of Tsukuba, Japan	Cell structure of 2D cohesive granular solid
10:00-10:15	CT	<b>Anusree KV</b> IISc Bengaluru, India	Experimental investigation of the effect of grain morphology on packing density of granular assemblies
10:15-10:30	CT	<b>Subham Chowdhury</b> IIT Kanpur, India	Combined effects of particle shape and strain rate on the ringshear response of granular soil
10:30-11:15	<b>Poster Session-6 (at IRIS &amp; IVY Ballrooms), with Tea/Coffee &amp; Snacks</b>		
Session-14	<b>S14: Emerging Topics: Active particles, Microgravity, AI/ML</b>		
	<b>(Chairs: Matthias Sperl &amp; Chuan-Yu Wu)</b>		
11:15-11:30	CT	<b>Olfa D'Angelo</b> Univ de Toulouse, France	Granular flows in low gravity: silo discharge and clogging
11:30-11:45	CT	<b>Sara Levay</b> Univ Navarra, Spain	Collective behavior of macroscopic photoactive particles: an experimental study
11:45-12:00	CT	<b>Subir K. Das</b> JNCASR Bengaluru, India	Density-field structures in a few systems undergoing velocity ordering
12:00-12:15	CT	<b>Dmitry Puzyrev</b> Otto von Guericke Univ, Germany	AI-aided visual data analysis for granular gases: complex particles, high density, and other challenges
12:15-12:45 25min+4min Q&A	IS	<b>Joshua A. Dijkstra</b> Univ Amsterdam, Netherlands (Chair: Karen Daniels, North Carolina State Univ, USA)	Agglomeration during reactive extrusion of particle-based biomass pellets
12:45-14:00	<b>Lunch</b>		
14:00-20:00	<b>Excursion &amp; Free Time</b>		

## DAY 5: Friday, December 12, 2025

(1 Invited & 10 Contributed Talks)

08:45-09:15 25min+4min Q&A	IS	<b>Bulbul Chakraborty</b> Brandeis University, USA (Chair: Thorsten Pöschel, Univ. of Erlangen-Nürnberg, Germany)	Rigidity of fragile matter: a Gauge-theoretic perspective
Session-15	<b>S15: Jamming and Rigidity</b>		
	<b>(Chairs: Devang Khakhar &amp; Jose Daniel Munoz )</b>		
09:15-09:30	CT	<b>T. Matthew Evans</b> Oregon State Univ, USA	Stress and fabric evolution in superellipsoid assemblies: influence of particle shape under constant mean stress shearing
09:30-09:45	CT	<b>Raphael Blumenfeld</b> University of Cambridge, UK	Self-organization, detailed balance, and stress-structure correlations in 2D granular dynamics
09:45-10:00	CT	<b>Gael Combe</b> Univ Grenoble Alpes, France	Negative grain-pressures in frictional cohesionless granular media with elongated particles
10:00-10:15	CT	<b>Abrar Naseer</b> IISc Bengaluru, India	Extracting contact forces in bonded granular ensembles
10:15-10:30	CT	<b>Fumiaki Nakai</b> University of Osaka, Japan	Dislocation glides in monolayered granular media: effect of lattice constant
10:30-10:45	CT	<b>Martin Trulsson</b> Lund University, Sweden	Alternating shear rotation for dense suspensions: influence of the strain amplitude
10:45-11:30	<b>Poster Session-7 (at IRIS &amp; IVY Ballrooms), with Tea/Coffee &amp; Snacks</b>		
Session-16	<b>S16: Particles in Pharma and Food Processes</b>		
	<b>(Chairs: Catherine O'Sullivan &amp; Francois Guillard)</b>		
11:30-11:45	CT	<b>Rajesh Dave</b> New Jersey Institute of Technology, USA	Model-guided flow enhancements of fine pharmaceutical powders via dry particle coating: linking particle-scale with bulk-scale through granular Bond number
11:45-12:00	CT	<b>Tijan Mede</b> Institute of Metals and Technology, Slovenia	A coupled fluid-granular approach to modelling powder stream in directed energy deposition
12:00-12:15	CT	<b>Kiran Iyer</b> Pfizer Healthcare, India	Discrete element method simulation of a twin screw wet granulator
12:15-12:30	CT	<b>Chuan-Yu Wu</b> University of Surrey, UK	DEM simulation of temperature increases of granular media during blade mixing
12:30-13:00	<b>Poster Award Ceremony and Closing Remarks</b>		
13:00-14:30	<b>Lunch and Departure</b>		