CALDAM 2025 Conference Schedule

February 13 – 15, 2025

Day 1 (Thursday, Feb 13, 2025)	
08:00 AM	Registration
08:45 AM	Inauguration
9:15 AM to 10:30 AM	**Invited Talk – I** **Chair: TBD** **Graph products, prime factorization, unique roots and cancellation** Wilfried Imrich
10:30 AM to 11: 00 AM	Tea Break
11: 00 AM to 01:05 PM	**Graph Theory-1** **Chair: TBD**
11:00 AM to 11:25 AM	**On full-separating sets in graphs** Dipayan Chakraborty and Annegret Wagler
11:25 AM to 11:50 AM	**On a Tight Bound for the Maximum Number of Vertices that Belong to Every Metric Basis** Anni Hakanen, Ville Junnila, Tero Laihonen, Havu Miikonen and Ismael G. Yero
11:50 AM to 12:15 PM	**An algebraic characterization of strong graphs** Pablo Romero
12:15 PM to 12:40 PM	**Generalized Lettericity of Graphs** Zhidan Feng, Henning Fernau, Kevin Mann, Indhumathi Raman and Silas Cato Sacher
12:40 PM to 01:05 PM	**There are finitely many uniformly most reliable graphs of corank 5** Pablo Romero
01:05 PM to 02:15 PM	Lunch
02:15 PM To 03:55 PM	**Graph Algorithms-1** **Chair: TBD**
02:15 PM to 02:40 PM	**Extension Perfect Roman Domination** Kevin Mann and Henning Fernau
02:40 PM to 03:05 PM	**Packing sets of paths, stars and triangles: tractability and approximability** Santiago Ravelo and Flavio K. Miyazawa

03:05 PM to 03:30 PM	**Polynomial-time algorithms for PATH COVER on trees and graphs of bounded treewidth** Florent Foucaud, Atrayee Majumder, Tobias Mömke and Aida Roshany-Tabrizi
03:30 PM to 03:55 PM	**Structural Parameterization of Minus Domination** Sangam Balchandar Reddy and Anjeneya Swami Kare
03:55 PM to 04:25 PM	Tea Break
04:25 PM to 06:05 PM	**Algorithms and Complexity – 1** **Chair: TBD**
04:25 PM to 04:50 PM	**The MASEMPR problem and its applications in logistics** Anand Subramani, K. Subramani, Piotr Wojciechowski and Sangram Kishor Jena
04:50 PM to 05:15 PM	**A sub-quadratic algorithm for the minsum one sink location problem on balanced binary tree networks** Jannatul Maowa and Robert Benkoczi
05:15 PM to 05:40 PM	**Addressing Bias in Algorithmic Solutions: Exploring Vertex Cover and Feedback Vertex Set** Sheikh Shakil Akhtar, Jayakrishnan Madathil, Pranabendu Misra and Geevarghese Philip
05:40 PM to 06:05 PM	**Partial Domination in Some Geometric Intersection Graphs** Madhura Dutta, Anil Maheshwari and Subhas C. Nandy
06.05 PM	CALDAM Business Meeting ACSDM Business Meeting **Chair:** Subir Kumar Ghosh

Day 2 (Friday, Feb 14, 2025)	
09:15 AM to 10:30 AM	<u>**Invited Talk - II**</u> <u>**Chair: TBD**</u> **Disk Graphs and Transmission Graphs -- Recent Developments** Wolfgang Mulzer
10:30 AM To 11:00 AM	Tea Break
11:00 AM to 11:50 AM	**Graph Theory - II** **Chair: TBD**
11:00 AM to 11:25 AM	**Graceful coloring is computationally hard** Cyriac Antony, Jacob Antony, Laavanya D and Devi Yamini S
11:25 AM to 11:50 AM	**Broadcast Graph Is NP-complete** Jinghan Xu and Zhiyuan Li

Time	Session
11:50 AM to 01:05 PM	**Computational Geometry** **Chair: TBD**
11:50 AM to 12:15 PM	**Maximizing the Maximum Degree in Ordered Nearest Neighbor Graphs** Péter Ágoston, Adrian Dumitrescu, Arsenii Sagdeev, Karamjeet Singh and Ji Zeng
12:15 PM to 12:40 PM	**Multipacking in Euclidean Plane** Arun Kumar Das, Sandip Das, Sk Samim Islam, Ritam M Mitra and Bodhayan Roy
12:40 PM to 01:05 PM	**Almost Empty Monochromatic Polygons in Planar Point Sets** Bhaswar Bhattacharya, Sandip Das, Sk Samim Islam and Saumya Sen
1:05 PM to 02:15 PM	Lunch
02:15 PM to 03:05 PM	**Graph Algorithms - II** **Chair: TBD**
02:15 PM to 02:40 PM	**Parameterized Complexity of Coupon Coloring of Graphs** Pradeesha Ashok, Pradyun Devarakonda, Shiven Phogat, Swaroop A Ram Rayala and J A Sherin
02:40 PM to 03:05 PM	**On the parameterized Complexity of Odd Coloring** Sriram Bhyravarapu, Vinod Reddy and Swati Kumari
03:05 PM to 03:55 PM	**Graph Theory - III** **Chair: TBD**
03:05 PM to 03:30 PM	**Total Domination and Open Packing in Two Subclasses of Triangle-free Graphs** M A Shalu and V K Kirubakaran
03:30 PM to 03:55 PM	**Helly Number, Radon Number and Rank in Δ-Convexity on Graphs** Bijo S. Anand, Arun Anil, Manoj Changat, Revathy S. Nair and Prasanth G. Narasimha-Shenoi
03:55 PM to 04:25 PM	Tea Break
04:25 PM to 05:40 PM	<u>**Invited Talk III**</u> <u>**Chair: TBD**</u> **Convex Geometries determined by betweenness axioms** Manoj Changat
5:40 PM to 6:40 PM	Felicitation of Prof. Manoj Changat on his retirement
7:30 PM	Banquet Dinner

Day 3 (Saturday, Feb 15, 2025)	
09:15 AM to 10:30 AM	**Algorithms and Complexity - II** **Chair: TBD**
09:15 AM to 09:40 AM	**Algorithms and hardness results for the $(3,1)$-cover problem** Amirali Madani, Anil Maheshwari, Babak Miraftab and Bodhayan Roy
09:40 AM to 10:05 AM	**Two Step Graph Protection Game** Saraswati Girish Nanoti and Aakash Ghosh
10:05 AM to 10:30 AM	**Polynomial time algorithms for Hop domination** Karthika D, Muthucumaraswamy R, Sriram Bhyravarapu and Pritesh Kumar
10:30 AM to 11:00 AM	Tea Break
11:00 AM to 11:50 AM	**Graph Algorithms - III** **Chair: TBD**
11:00 AM to 11:25 AM	**Fast FPT Algorithms for Grundy Number on Dense Graphs** Sina Ghasemi Nezhad, Maryam Moghaddas and Fahad Panolan
11:25 AM to 11:50 AM	**Polynomial time algorithms for Hop domination** Karthika D, Muthucumaraswamy R, Sriram Bhyravarapu and Pritesh Kumar
11:50 AM to 01:05 PM	**Graph Theory - IV** **Chair: TBD**
11:50 AM to 12:15 PM	**Spectra of eccentricity matrices of product of graphs** S. Balamoorthy and T. Kavaskar
12:15 PM to 12:40 PM	**Bipartite Domination in Graphs: Complexity and Algorithms** Bhawani Sankar Panda, Subhasmita Joshi and Dalu Jacob
12:40 PM to 01:05 PM	**Forbidden induced subgraphs in iterative higher order line graphs** Aryan Sanghi, Devsi Bantva and Sudebkumar Prasant Pal
01:05 PM	Conclusion
01:20 PM	Lunch