ICAWMSCS 2025: International Conference and Advanced Workshop on Modelling and Simulation of Complex Systems



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Type: not specified

Hands on Workshop- Symmetry Analysis of Differential Equations

Friday, 25 July 2025 08:30 (4h 15m)

At the end of this workshop, participants will be able to Image: Understand what is meant by the invariance of a differential equation Image: Understand the concept of group transformations Image: Derive infinitesimal transformations of the Lie group of transformations Image: Determine Lie point symmetries of ordinary differential equations Image: Use the derived Lie point symmetries to integrate ordinary differential equations Image: Determine Lie point symmetries of Partial differential equations Image: Determine Lie point symmetries of partial differential equations Image: Determine Lie point symmetries of partial differential equations Image: Determine Lie point symmetries of partial differential equations Image: Determine Lie point symmetries of partial differential equations Image: Determine Lie point symmetries of partial differential equations Image: Determine Lie point symmetries of partial differential equations Image: Determine Lie point symmetries of partial differential equations to determine similarity solutions which Image: Determine Lie point symmetries of partial differential equations to determine similarity solutions which Image: Determine Lie point symmetries of partial differential equations to determine similarity solutions which Image: Determine Lie point symmetries of partial differential equations to determine similarity solutions which Image: Determine Lie point symmetries to partial differential equations to ordinary differential equations

Presenter: Dr FAREO, Gideon (University of the Witwatersrand, Johannesburg, South Africa)