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



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Hands on Workshop- Symmetry Analysis of Differential Equations

Thursday, 24 July 2025 08:30 (8 hours)

At the end of this workshop, participants will be able to

 \square Understand what is meant by the invariance of a differential equation

 \square Understand the concept of group transformations

 \square Derive infinitesimal transformations of the Lie group of transformations

 \square Determine Lie point symmetries of ordinary differential equations

☐ Use the derived Lie point symmetries to integrate ordinary differential equations

 \square Determine Lie point symmetries of Partial differential equations

 $\[Mathemath{\mathbb{M}}\]$ Use the derived Lie point symmetries of partial differential equations to determine similarity solutions which are then used to reduce partial differential equations to ordinary differential equations

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