

Virtual training course: Advanced numerical methods for earth system modelling



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The spectral transform method

Tuesday, 10 March 2020 13:40 (1 hour)

The success of the spectral transform method in global NWP in comparison to alternative methods has been overwhelming, with many operational forecast centres (including ECMWF) having made the spectral transform their method of choice. The lecture will introduce the basic elements of the spectral transform, explain why it has been successful and describe recent developments such as the fast Legendre transform.

By the end of the session you should be able to:

- explain what the spectral transform method is, how it is applied, and describe the latest developments at ECMWF
- give reasons why it is successful for global NWP and climate
- identify potential disadvantages of the method

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