

# Numerical methods



# ***Numerical methods for seismology***

popularity



## **Finite differences (FD)**

*robust, regular grids*

## **Finite-element method (FEM)**

*geometrical flexible, irregular grids*

## **Pseudo-spectral method (PS)**

*high accuracy/cost ratio, regular grids*

## **Finite-volume (FV), Particle-based methods, Boundary-element method (BEM)**

*special solutions, engineering*

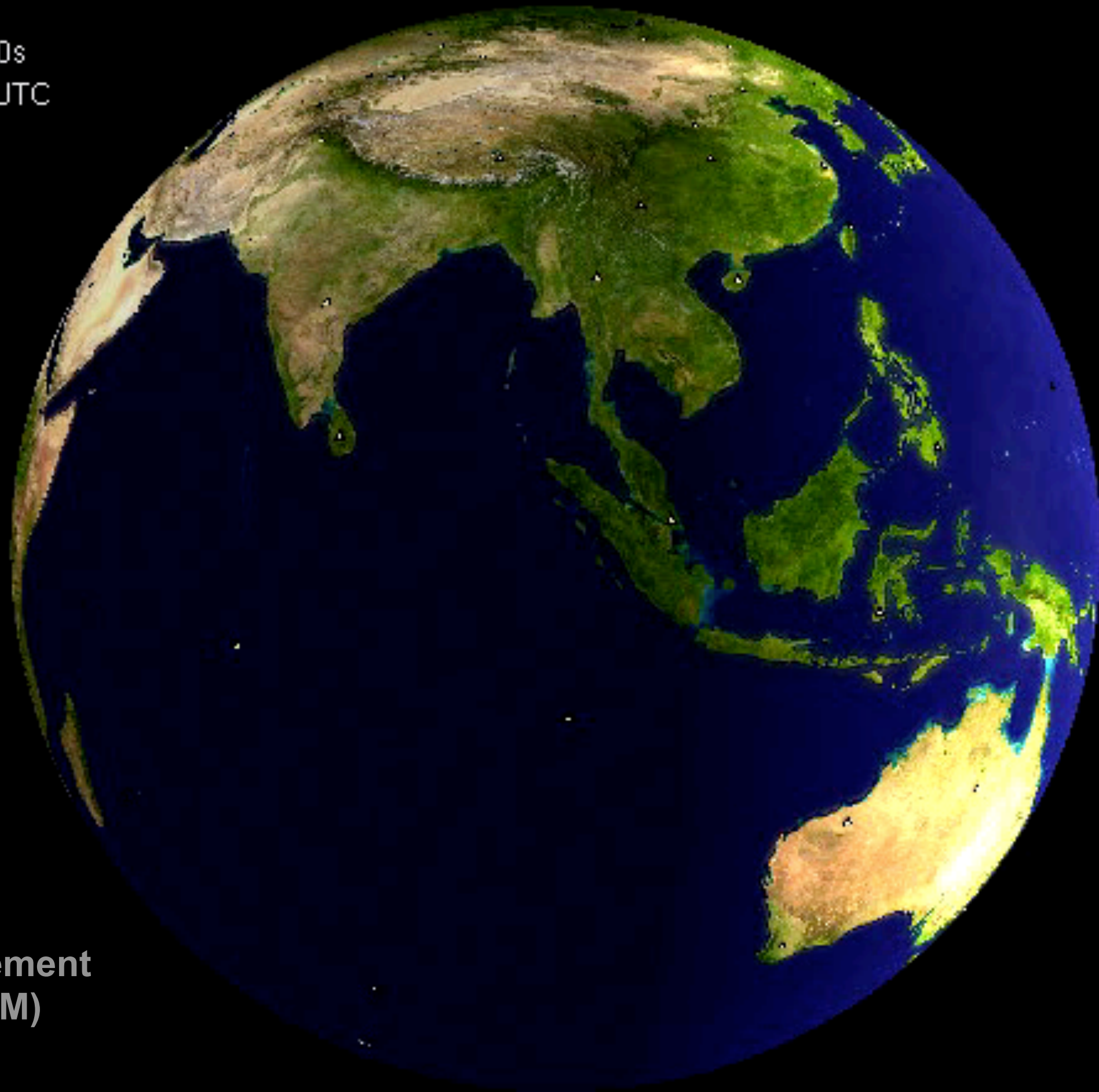




Spectral-element  
method (SEM)



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**Spectral-element  
method (SEM)**