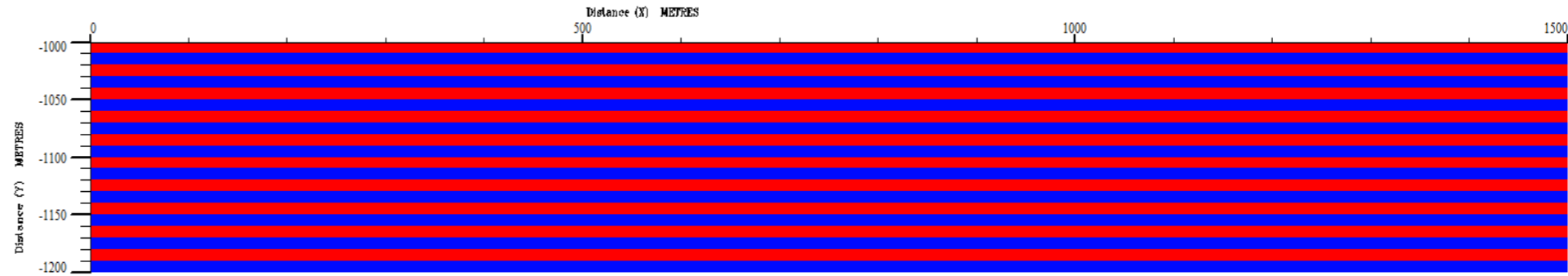


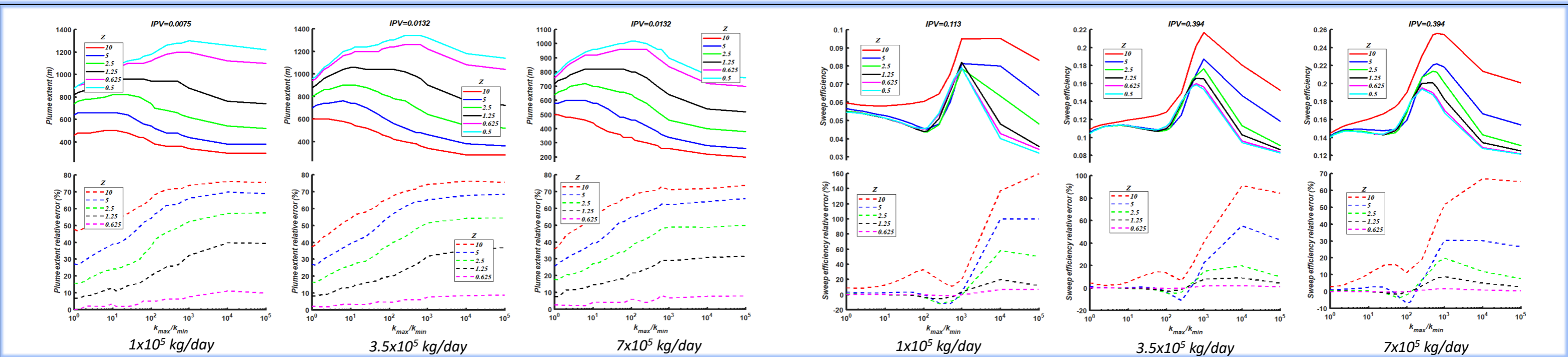
Impact of Vertical Grid Resolution on CO₂ Plume Migration in Layered Aquifers

Research Objectives

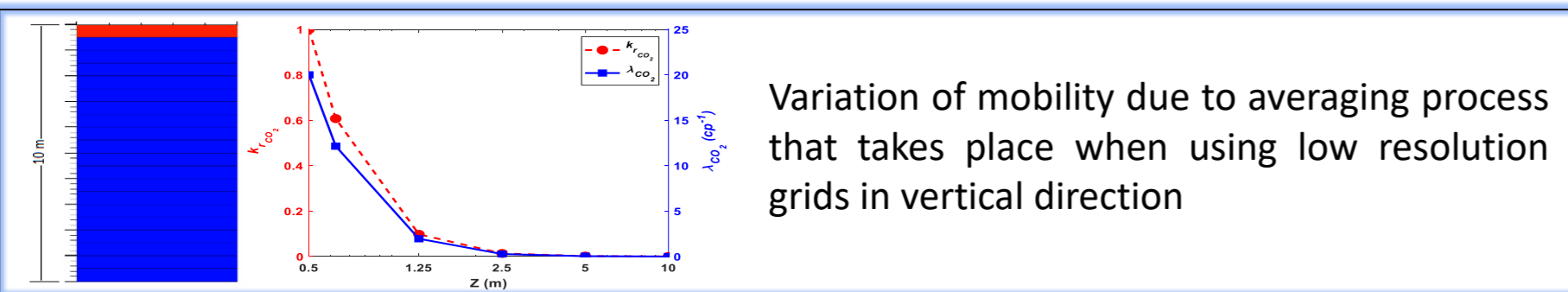
1. Determination of relation between errors in performance parameters due to variation in vertical gridding resolution and degree of heterogeneity in the context of CO₂ geo-sequestration in layered aquifers.
2. Clarifying why this variation takes place and what parameters control the discretization error.



Layered aquifer model prepared for the mesh sensitivity analysis. The red color represents high permeability layers and the blue color represents low permeability layers. Layer thickness is 10 m.



Plume Extent and sweep efficiency for different grid cell size and their corresponding relative error for three injection rate



Variation of mobility due to averaging process that takes place when using low resolution grids in vertical direction

More Information

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