

SUPPLEMENTARY MATERIAL

The supplementary material contains the raw datasets, the most important trained models and the code basis for preparing the raw data to train on, separate training routines and evaluation protocols for LGCNN (on real or synthetic/random permeability fields), UNet_{3dp}, experiments with 3dp; and on the other hand everything with 101dp: DDUNet_{101dp}, UNet_{101dp}, experiments with 101dp.

Raw datasets:

- Dataset of random permeability with 3+1 datapoints (3dp + 1dp)
- Dataset of random permeability with 101 datapoints (101dp)
- Dataset of real permeability with 4+1 datapoints

Trained models (including hyperparameters):

- vanilla approaches trained on random permeability fields, 3dp: UNet_{3dp}
- vanilla approaches trained on random permeability fields, 101dp: DDUNet_{101dp}, UNet_{101dp}
- LGCNN on random permeability fields, 3dp
- LGCNN experiment: replace isolated steps 1 and 3 with DDUNet_{101dp}, UNet_{101dp}
- LGCNN on real permeability fields, 4dp

Code (including training and evaluation routines):

- Repository of 101dp-vanilla approaches (DDUNet_{101dp}, UNet_{101dp}, also experiment "replace isolated steps")
- Repository LGCNN + UNet_{3dp} (including preparation script for datasets to prepare datasets, for all models and approaches)

All supplementary material can be accessed via SURFDrive, through this link:
<https://surfdribe.surf.nl/files/index.php/s/f3Oqg3ufir9T9LL>.