S3 Text: Relationship between training and prediction RMSE for individual and ensemble models

Data-driven reverse engineering of signaling pathways using ensembles of dynamic models

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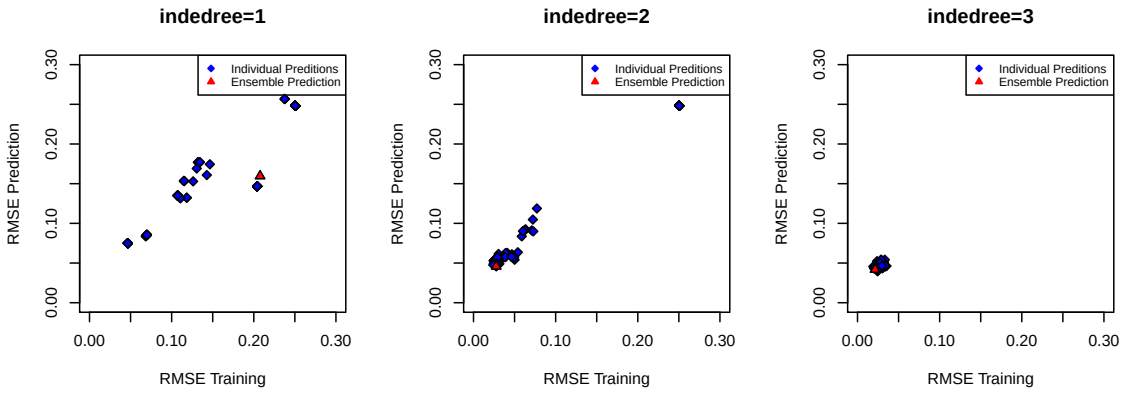


Figure 1: *Relationship between training and prediction RMSE for case study 1a (MAPFp).* The prediction RMSE is plotted here against the training RMSE for each individual model (blue) and the ensemble (red).

1.2 Case study 1b (MAPKf)

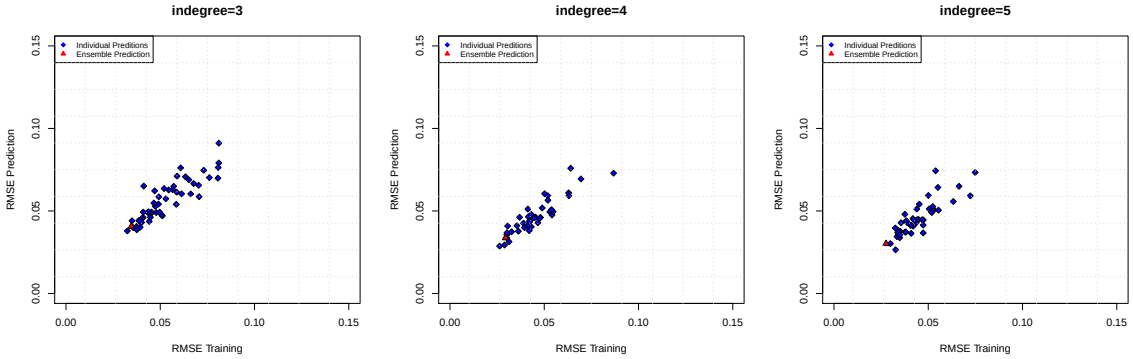


Figure 2: *Relationship between training and prediction RMSE for case study 1b (MAPFf).* The prediction RMSE is plotted here against the training RMSE for each individual model (blue) and the ensemble (red).

1.3 Case study 2 (SSP)

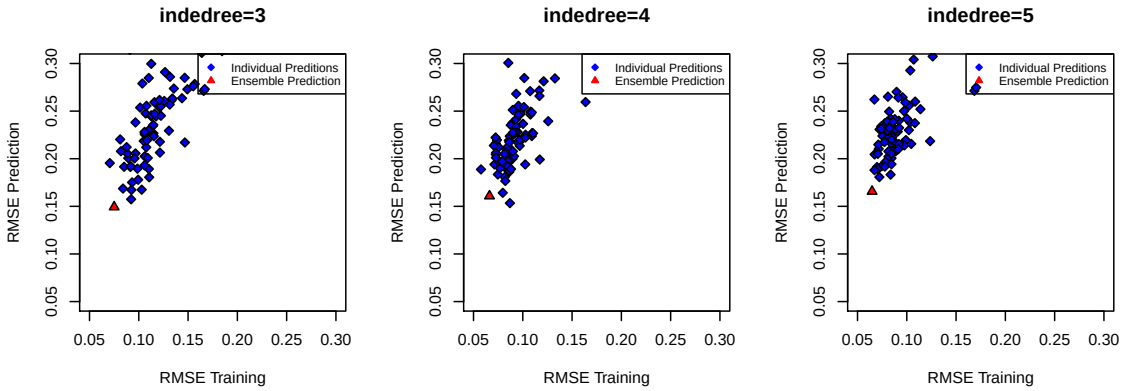
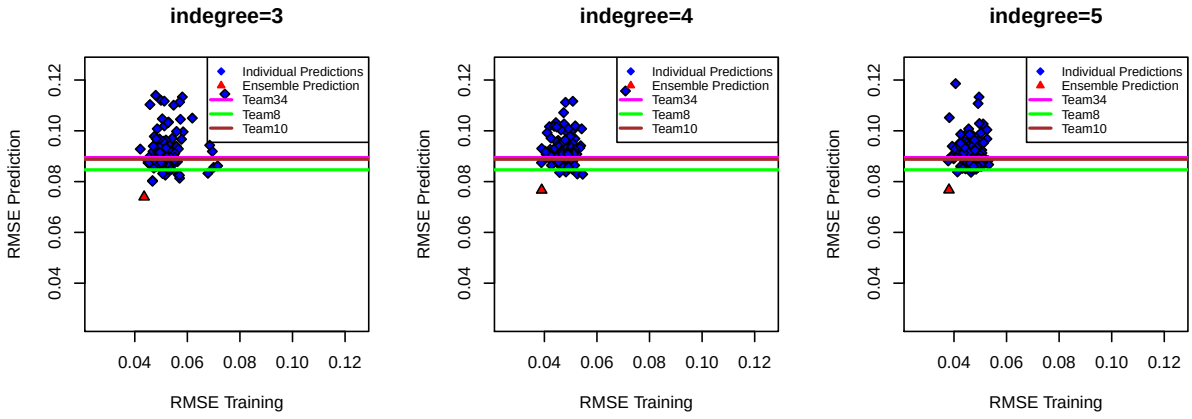


Figure 3: *Relationship between training and prediction RMSE for case study 2 (SSP).* The prediction RMSE is plotted here against the training RMSE for each individual model (blue) and the ensemble (red).

1.4 Case study 3 (DREAMiS)



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1.5 Case study 4a (DREAMBT20)

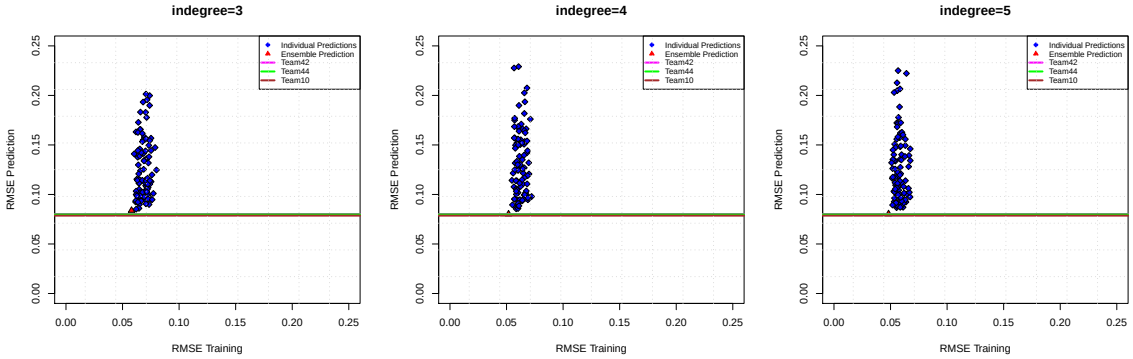

Figure 5: *Relationship between training and prediction RMSE for case study 4a (DREAMBT20).* The prediction RMSE is plotted here against the training RMSE for each individual model (blue) and the ensemble (red). RMSE scores for the top 3 performing teams in the HPN-DREAM experimental time-course prediction sub-challenge (Team44, Team42 and Team10) are also shown colored lines.

1.6 Case study 4b (DREAMBT549)

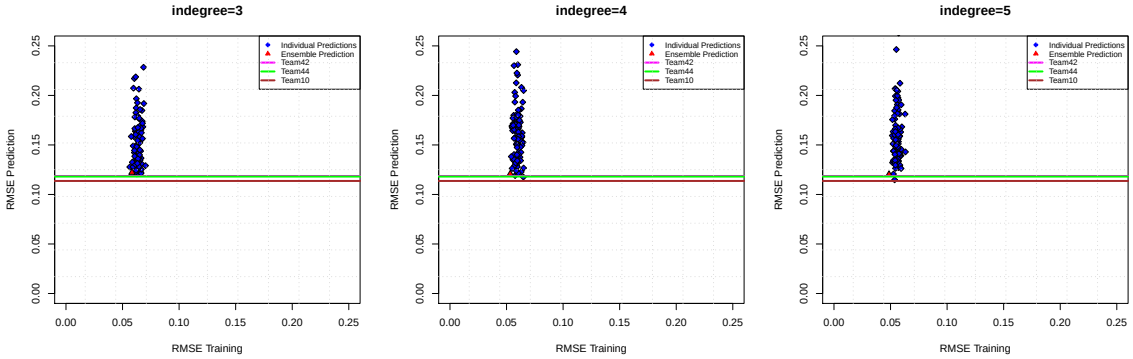

Figure 6: *Relationship between training and prediction RMSE for case study 4b (DREAMBT549).* The prediction RMSE is plotted here against the training RMSE for each individual model (blue) and the ensemble (red). RMSE scores for the top 3 performing teams in the HPN-DREAM experimental time-course prediction sub-challenge (Team44, Team42 and Team10) are also shown colored lines.

1.7 Case study 4c (DREAMMCF7)

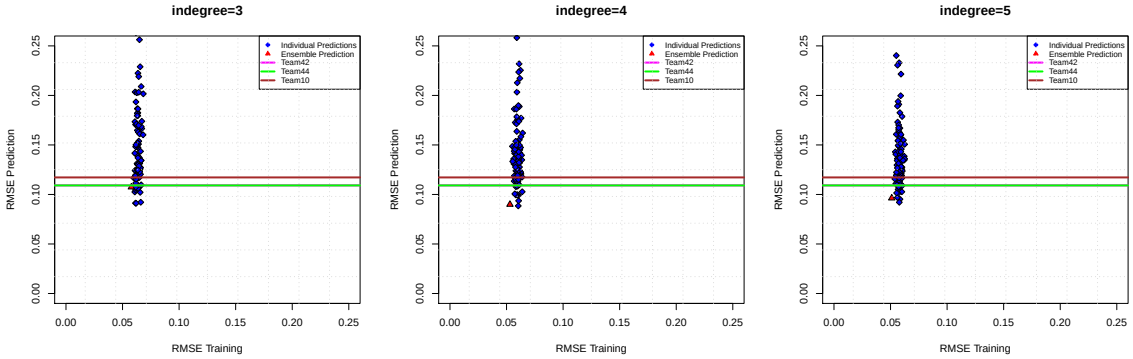

Figure 7: *Relationship between training and prediction RMSE for case study 4c (DREAMMCF7).* The prediction RMSE is plotted here against the training RMSE for each individual model (blue) and the ensemble (red). RMSE scores for the top 3 performing teams in the HPN-DREAM experimental time-course prediction sub-challenge (Team44, Team42 and Team10) are also shown colored lines.

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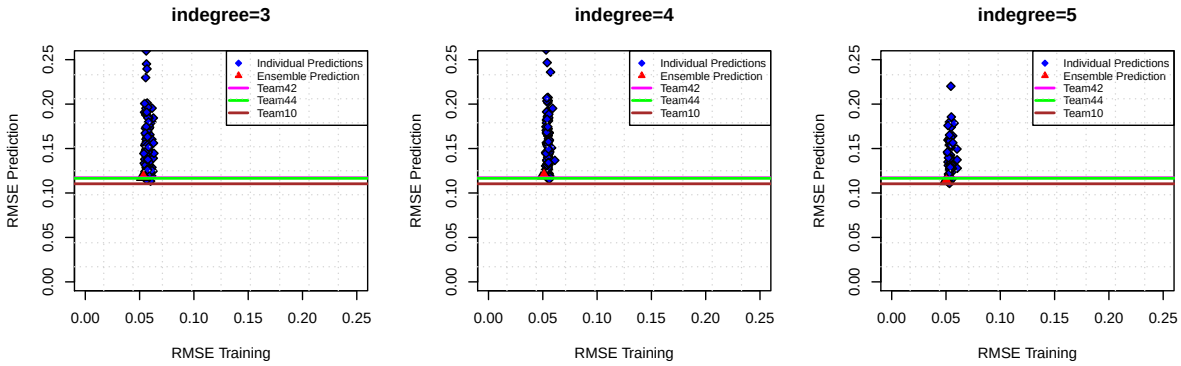

Figure 8: *Relationship between training and prediction RMSE for case study 4d (DREAMUACC812).* The prediction RMSE is plotted here against the training RMSE for each individual model (blue) and the ensemble (red). RMSE scores for the top 3 performing teams in the HPN-DREAM experimental time-course prediction sub-challenge (Team44, Team42 and Team10) are also shown colored lines.