**Manuscript Title**: Double-robust Bayesian variable selection and model prediction with spherically symmetric errors

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**Experimental data in the case study**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Run | Temperature | Distance | Flow rate | Collector speed | Fiber diameter |
| 1 | -1 | -1 | -1 | -1 | 15.16 |
| 2 | 1 | -1 | -1 | -1 | 15.80 |
| 3 | -1 | 1 | -1 | -1 | 11.57 |
| 4 | 1 | 1 | -1 | -1 | 12.21 |
| 5 | -1 | -1 | 1 | -1 | 13.82 |
| 6 | 1 | -1 | 1 | -1 | 14.47 |
| 7 | -1 | 1 | 1 | -1 | 11.67 |
| 8 | 1 | 1 | 1 | -1 | 12.65 |
| 9 | -1 | -1 | -1 | 1 | 18.86 |
| 10 | 1 | -1 | -1 | 1 | 22.74 |
| 11 | -1 | 1 | -1 | 1 | 14.58 |
| 12 | 1 | 1 | -1 | 1 | 16.98 |
| 13 | -1 | -1 | 1 | 1 | 19.49 |
| 14 | 1 | -1 | 1 | 1 | 21.06 |
| 15 | -1 | 1 | 1 | 1 | 14.58 |
| 16 | 1 | 1 | 1 | 1 | 16.44 |
| 17 | -1 | 0 | 0 | 0 | 13.65 |
| 18 | 1 | 0 | 0 | 0 | 15.40 |
| 19 | 0 | -1 | 0 | 0 | 14.78 |
| 20 | 0 | 1 | 0 | 0 | 11.83 |
| 21 | 0 | 0 | -1 | 0 | 13.36 |
| 22 | 0 | 0 | 1 | 0 | 12.57 |
| 23 | 0 | 0 | 0 | -1 | 10.65 |
| 24 | 0 | 0 | 0 | 1 | 15.45 |
| 25 | 0 | 0 | 0 | 0 | 13.16 |
| 26 | 0 | 0 | 0 | 0 | 12.96 |
| 27 | 0 | 0 | 0 | 0 | 13.36 |
| 28 | 0 | 0 | 0 | 0 | 12.66 |
| 29 | 0 | 0 | 0 | 0 | 13.21 |
| 30 | 0 | 0 | 0 | 0 | 13.42 |
| 31 | 0 | 0 | 0 | 0 | 12.40 |
| 32 | -0.08 | 0.1 | 0.25 | -0.73 | 11.84 |
| 33 | -0.91 | 1 | -0.9 | -0.65 | 12.51 |
| 34 | 0.55 | -0.03 | 0.1 | 0.26 | 16.01 |
| 35 | 0.39 | -0.39 | 0.8 | -0.02 | 12.29 |
| 36 | 0.58 | 0.77 | 0.2 | 0.39 | 14.85 |
| 37 | 0.69 | 0.86 | 0 | 0.31 | 15.07 |
| 38 | 0.97 | -0.29 | 0.5 | 0.44 | 19.09 |
| 39 | 0.07 | -0.16 | -0.75 | -0.57 | 12.94 |
| 40 | -0.25 | 0.06 | -0.4 | -0.08 | 13.44 |
| 41 | -0.97 | 1.36 | 0.55 | -0.4 | 12.55 |
| 42 | -0.2 | 1.46 | 0.95 | 0.2 | 11.41 |
| 43 | 0.35 | 0.39 | -0.5 | 0.5 | 15.16 |
| 44 | -0.74 | 1.09 | -0.7 | 0.67 | 14.15 |
| 45 | 0.03 | 1.11 | 0.65 | -0.93 | 9.81 |
| 46 | -0.75 | 0.31 | -0.2 | 0.79 | 16.04 |
| 47 | 0.28 | 0.17 | -0.65 | 0.57 | 15.68 |
| 48 | 0.62 | 1.04 | 0.35 | -0.51 | 12.40 |
| 49 | -0.34 | 0.25 | 0.9 | -0.15 | 13.16 |
| 50 | -0.59 | 0.63 | -0.25 | 0.09 | 13.43 |
| 51 | -0.5 | 0.43 | -0.05 | 0.93 | 15.49 |
| 52 | 0.43 | 0.5 | 0.45 | -0.75 | 11.78 |
| 53 | 0.21 | 1.23 | -0.15 | -0.47 | 11.29 |
| 54 | 0.88 | 1.39 | -0.35 | -0.9 | 12.37 |
| 55 | -0.83 | 0.58 | -0.8 | -0.87 | 12.54 |
| 56 | -0.39 | 0.24 | 0.8 | -0.26 | 12.84 |
| 57 | 0.86 | 0.79 | 0.35 | 0.12 | 15.40 |
| 58 | 0.79 | -0.36 | -0.95 | -0.34 | 15.72 |
| 59 | -0.43 | -0.07 | -0.6 | 0.69 | 16.04 |
| 60 | -0.1 | 1.27 | 0.7 | 0.83 | 13.11 |
| 61 | -0.66 | -0.23 | -0.45 | 0.94 | 17.31 |
| 62 | 0.14 | 0.68 | 0.15 | -0.19 | 12.45 |