| Correct PDE:                  | $0.03183 \text{ u\_xx} - 1.0 \text{ uu\_x}  \text{(viscosity} = 0.1/\text{pi)}$ |
|-------------------------------|---|
| Model                         | Discovered equation and parameters  |
| 128x64 problem size           |   |
| PINN                          | 0.0318582 u_xx - 0.99928 uu_x   |
| STLSQ                         | 0.03222 u_xx - 1.00012 uu_x   |
| FROLS                         | 0.032 u_xx - 1.000 uu_x   |
| SR3                           | 0.032 u_xx - 1.000 uu_x   |
| SSR                           | $0.003 \text{ u} + 0.032 \text{ u\_xx} - 1.002 \text{ uu\_x}$                   |
| $256 \times 128$ problem size |   |
| PINN                          | 0.0318372 u_xx - 0.99924 uu_x   |
| STLSQ                         | 0.03193 u_xx - 1.00002 uu_x   |
| FROLS                         | 0.032 u_xx - 1.000 uu_x   |
| SR3                           | 0.032 u_xx - 1.000 uu_x   |
| SSR                           | $0.001 \text{ u} + 0.032 \text{ u\_xx} - 1.000 \text{ uu\_x}$                   |
| $512 \times 256$ problem size |   |
| PINN                          | 0.0318292 u_xx - 0.99936 uu_x   |
| STLSQ                         | 0.03186 u_xx - 1.00001 uu_x   |
| FROLS                         | 0.032 u_xx - 1.000 uu_x   |
| SR3                           | 0.032 u_xx - 1.000 uu_x   |
| SSR                           | 0.032 u_xx - 1.000 uu_x   |