This is the new advection diffusion equation with different parameter values

`new_advection_diffusion`

Error	Method	u RMSE	u_t RMSE	u_x RMSE	u_{xx} RMSE
$\sigma = 00$	FD	0.00e+00	8.15e-05	1.89e-04	2.65e-02
$\sigma = 00$	LCVSP	2.15e-06	1.10e-04	3.01e-06	7.08e-01
$\sigma = 00$	LNCVSP	7.74e-08	9.71e-03	2.35e-06	7.27e-01
$\sigma = 00$	GNCVSP	2.41e-04	5.30e-01	1.48e-01	1.40e+00
$\sigma = 01$	FD	9.92e-05	3.06e+02	1.47e+01	2.38e+04
$\sigma = 01$	LCVSP	6.76e-06	1.02e+01	2.61e-01	1.45e+02
$\sigma = 01$	LNCVSP	4.75e-06	1.16e+01	2.63e-01	1.49e+02
$\sigma = 01$	GNCVSP	6.11e-05	2.92e-01	3.42e-02	2.30e+00
$\sigma = 05$	FD	2.51e-03	3.38e+03	2.28e+02	2.75e+06
$\sigma = 05$	LCVSP	1.25e-04	1.22e+02	5.18e+00	5.67e+03
$\sigma = 05$	LNCVSP	1.20e-04	2.72e+02	5.15e+00	6.19e+03
$\sigma = 05$	GNCVSP	1.75e-04	1.72e-01	4.13e-01	1.28e+00
$\sigma = 10$	FD	1.01e-02	4.66e+04	1.76e+03	1.27e+06
$\sigma = 10$	LCVSP	5.18e-04	1.02e+03	4.91e+01	5.25e+03
$\sigma = 10$	LNCVSP	5.12e-04	1.84e+03	4.78e+01	6.40e+03
$\sigma = 10$	GNCVSP	5.15e-04	6.87e-01	1.61e-01	1.72e+00
$\sigma = 25$	FD	6.21e-02	3.47e+05	1.11e+04	1.59e+07
$\sigma = 25$	LCVSP	3.12e-03	8.03e+03	1.53e+02	5.79e+04
$\sigma = 25$	LNCVSP	3.20e-03	1.41e+04	1.52e+02	6.36e+04
$\sigma = 25$	GNCVSP	4.57e-03	6.52e-01	8.54e-01	6.90e+00
$\sigma = 50$	FD	2.44e-01	4.32e+05	3.19e+04	4.09e+07
$\sigma = 50$	LCVSP	1.21e-02	2.79e+04	7.21e+02	2.14e+05
$\sigma = 50$	LNCVSP	1.27e-02	4.80e+04	9.92e+02	1.78e+05
$\sigma = 50$	GNCVSP	5.53e-02	5.44e+00	7.73e-01	3.16e+01