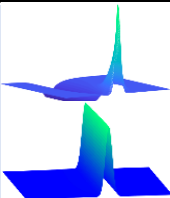
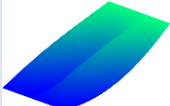


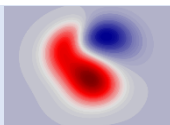
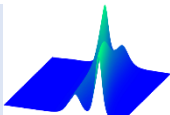
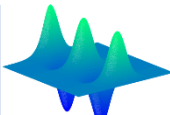
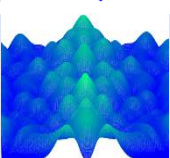
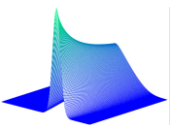
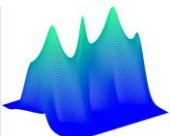


Canonical PDEs	Dynamics	Data	Results discovered by $S^3d$	MSE-STD
FitzHugh-Nagumo  $u_t = u_{xx} - 0.2u + 1.2u^2 - u^3 - w$ $w_t = 0.002u - 0.001w$		$U^{512 \times 401}; 10000$	$u_t = 1.0023u_{xx} - 0.1991u + 1.2004u^2 - 1.0031u^3 - 1.0005w$	$0.2649\% \pm 0.2462\%$
		10000	$w_t = 0.001999u - 0.000993w$	
		18000	$u_t = 1.0025u_{xx} - 0.1981u + 1.1762u^2 - 0.9499u^3 - 0.9920w$	$1.6795\% \pm 1.6690\%$
		27000	$w_t = 0.001952u - 0.001004w$	
Klein-Gordon  $u_{tt} = u_{xx} - u - u^3$		$U^{101 \times 1001}; 10000$	$u_{tt} = 0.9994u_{xx} - 0.9995u - 0.9998u^3$	$0.0426\% \pm 0.0220\%$
		15500	$u_{tt} = 0.9987u_{xx} - 0.9833u - 1.0303u^3$	$1.6100\% \pm 1.4513\%$
Fisher's equation  $u_t = 0.1u_{xx} + u - u^2$		$U^{201 \times 1000}; 10000$	$u_t = 0.0997u_{xx} + 0.9998u - 1.0002u^2$	$0.0960\% \pm 0.1342\%$
		10000	$u_t = 0.0971u_{xx} + 1.0053u - 1.0079u^2$	$1.4104\% \pm 1.3007\%$
Kuramoto-Sivashinsky  $u_t = -u_{xx} - uu_x - u_{xxx}$		$U^{2048 \times 1001}; 14203$	$u_t = -1.0000u_{xx} - 1.0000uu_x - 1.0000u_{xxx}$	$0.0022\% \pm 0.0010\%$
		59210	$u_t = -0.9214u_{xx} - 0.9095uu_x - 0.9238u_{xxx}$	$8.1781\% \pm 0.7678\%$
Navier-Stokes  $w_t = 0.01w_{xx} + 0.01w_{yy} - uw_x - vw_y$		$U^{100 \times 100 \times 1001}; 10000$	$w_t = 0.0100w_{xx} + 0.0100w_{yy} - 1.0068uw_x - 0.9987vw_y$	$0.3700\% \pm 0.2305\%$
		20000	$w_t = 0.0100w_{xx} + 0.0097w_{yy} - 1.0051uw_x - 1.0013vw_y$	$0.9447\% \pm 1.3498\%$
Korteweg-de Vries  $u_t = -0.000484u_{xxx} - uu_x$		$U^{256 \times 1301}; 10000$	$u_t = -0.000484u_{xxx} - 0.999247uu_x$	$0.0855\% \pm 0.0145\%$
		18750	$u_t = -0.000483u_{xxx} - 0.982950uu_x$	$0.9982\% \pm 0.9995\%$
Sine-Gordon equation  $u_{tt} = u_{xx} - \sin(u)$		$U^{512 \times 256}; 10$	$u_{tt} = 0.9999u_{xx} - 0.9987\sin(u)$	$0.0706\% \pm 0.0895\%$
		50	$u_{tt} = 0.9920u_{xx} - 0.9982\sin(u)$	$0.4874\% \pm 0.4407\%$
Nonlinear Schrödinger equation  $u_t = -\frac{10}{3}iu + \frac{10}{3}i u ^2u + 0.3iu_{xx}$		$U^{512 \times 501}; 10000$	$u_t = -3.3333iu + 3.3333i u ^2u + 0.3000iu_{xx}$	$0.0011\% \pm 0.0007\%$
		10000	$u_t = -3.3187iu + 3.2947i u ^2u + 0.3013iu_{xx}$	$0.6775\% \pm 0.4162\%$
Burgers' equation  $u_t = 0.1u_{xx} - uu_x$		$U^{256 \times 101}; 2000$	$u_t = 0.1000u_{xx} - 0.9999uu_x$	$0.0051\% \pm 0.0054\%$
		5000	$u_t = 0.1001u_{xx} - 1.0010uu_x$	$0.0760\% \pm 0.0366\%$
Quantum Harmonic Oscillator  $u_t = 0.5iu_{xx} - i\frac{x^2}{2}u$		$U^{512 \times 401}; 2000$	$u_t = 0.5001iu_{xx} - 0.9999i\frac{x^2}{2}u$	$0.0117\% \pm 0.0055\%$
		2000	$u_t = 0.4996iu_{xx} - 1.0005i\frac{x^2}{2}u$	$0.0685\% \pm 0.0273\%$