#Jenny

Finally I get this ebook, thanks for all these I can get now!

#Rio

Cool! I'am really happy

#Markus Jensen

I did not think that this would work, my best friend showed me this website, and it does! I get my most wanted eBook

#Hun Tsu

wtf this great ebook for free?!

#Che Salsa

My friends are so mad that they do not know how I have all the high quality ebook which they do not!

#Diego Butler

so many fake sites. this is the first one which worked! Many thanks

Example

Consider again a problem with two dependent variables $u(x,t)$, $v(x,t)$ and the following PDE system for them

> $DepVars := [u, v](x,t)$

$DepVars := [u, v(x,t)]$

> $U, V := diff\_table(u(x,t)), diff\_table(v(x,t))$:

> $eq_1 := U_t + \frac{1}{2}U_x^2 + 2V_{11} - 2x = \frac{1\left(-V_t^2 + 2V_{x,t}V_{11}\right)}{2V_{11}^2}$

$eq_1 := u_t + \frac{1}{2}u_x^2 + 2v(x,t) - 2x = \frac{1}{2}\frac{-v_t^2 + 2v_{x,t}v(x,t)}{v(x,t)^2}$

> $eq_2 := V_t + \frac{\partial}{\partial x}(V_{11}U_x) = 0$

$eq_2 := v_t + v_x u_x + v(x,t)u_{x,x} = 0$

> $PDESYS := [eq_1, eq_2]$:

> $S := InfinitesimalS(PDESYS, DepVars, typesSymmetry = And(evolutionary, polynomial), displayfunctionality = false)$

$S := [\{\xi_1 = 0, \xi_2 = 0, \eta_u = 1, \eta_v = 0\}, \{\xi_1 = 0, \xi_2 = 0, \eta_u = u_x, \eta_v = v_x\}, \{\xi_1 = 0, \xi_2 = 0, \eta_u = u_x - 2t, \eta_v = v_x\}, \{\xi_1 = 0, \xi_2 = 0, \eta_u = -t^2 + tu_x = t, \eta_v = tv_x\}$

Note that, as expected, in the result above there are dynamical symmetries (the last three), involving the derivatives u_t, u_x, v_t and v_x.

Dynamical symmetries can also be tested for correctness with SymmetryTest

> $map(SymmetryTest, [S], PDESYS)$

$[\{0\}, \{0\}, \{0\}, \{0\}]$

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