SET 2: March 25 , 2002 - (due 19 April 2002)

MATH 534: DIFFERENTIABLE MANIFOLDS

Find the Lie point symmetries (*isogroup*) of the equation

$$u_{,t} = u_{,xx} + u_{,yy} + uu_x$$

using the exterior differential systems. For the reference see the following classical paper.

B. K. Harrison and F. B. Estabrook, **Geometric Approach in Invariant Groups and Solution of Partial Differential Equations**, *Journal of Mathematical Physics*, Vol. 12, 653-666 (1971)