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ON SYMMETRY OF THE NONHOMOGENEOUS MONGE-AMPERE EQUATION

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We consider the Monge-Ampere equation of the form:

$$u_{xx}u_{yy} - (u_{xy})^2 + (xy + \mu y^2 + \alpha)^{-2} = 0, \cdot$$

where $u = u(x, y)$, μ, α are real constants.

Khabirov [1] has investigated the symmetry property of the equation under consideration. It has been proved that the equation is invariant with respect to five-dimentional Lie algebra.

In my talk, I plan to present some results concerning of the construction of one-parameter Lie groups corresponding to the bases operators of that Lie algebra.

1. *Khabirov S. V.* Nonisentropic one-dimensional motions of a gas constructed by means of a contact group of the inhomogeneous Monge-Ampere equation. (Russian) // Mat. Sb. – 1990. –181, No. 12. – P. 1607-1622; translation in Math USSR-Sb. – 1992. – 71, No. 2. – P. 447-462.

ПРО СИМЕТРІЮ НЕОДНОРІДНОГО РІВНЯННЯ МОНЖА-АМПЕРА

Побудовано однопараметричні групи перетворень, які відповідають базисним операторам алгебри Лі групи симетрії неоднорідного рівняння Монжа-Ампера.