

Basic Pattern in Atmospheric Turbulence Model

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Abstract: From the controlling equations of atmosphere motion, Prandtl's mixing length theory is used to derive the atmospheric turbulence models, such as Burgers equation model and Burgers-KdV equation model. And then the projective Riccati equations are applied to solve these atmospheric turbulence models, where much more patterns are obtained, including solitary wave pattern, singular pattern, and so on.

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Key words: atmospheric turbulence model, Burgers-type equations, projective Riccati equations

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