

**ASYMPTOTIC EXPANSION FOR A SOLUTION
OF AN ORDINARY SECOND-ORDER DIFFERENTIAL EQUATION
WITH THREE TURNING POINTS**

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D. A. Tursunov

Using the generalized method of boundary functions, we construct a uniform asymptotic expansion of the solution of the Dirichlet problem for a singularly perturbed linear inhomogeneous ordinary second-order differential equation with three turning points on the real axis. The constructed asymptotic series is a Puiseux series.

Keywords: asymptotic expansion, turning point, singular (bisingular) perturbation, ordinary second-order differential equation, Airy equation, modified Bessel functions, Dirichlet problem, generalized boundary function, small parameter.

D.A. Tursunov, Dr. Phys.-Math. Sci., Prof., Osh State University, Osh, 723500 Kyrgyzstan,
e-mail: tdaosh@gmail.com .

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