

## **Analysis of stress in half plane elasticity with vibration load**

### **Abstract**

In this paper, a vibration pressure is applied on the edge of half plane, and using the separation method the relevant boundary value problem is solved and the Airy's function is obtained. Three kinds of stresses are obtained from the Airy's function. These results are valid for the load functions in the class of piecewise functions.

**Keyword:** Biharmonic equation; Stress function; Airy function; Separation method; Vibration load; Sinusoidal pressure