

## 振動測定からみた鉄塔の問題点

石崎 潑雄・川村 純夫

### SOME PROBLEMS ON THE STEEL TOWERS UNDER THE ACTION OF WIND

*by Dr. Eng. Hatsuo ISHIZAKI and Sumio KAWAMURA*

#### Synopsis

The vibrations of steel towers under the action of wind have not yet been clarified completely. This paper sets forth the problems of wind forces acting on the steel towers that are vibrating. Usually, we assume that the design wind load on steel towers is the static pressure and the structure of tower is perfectly rigid. However, the deformations of structure may induce additional aerodynamic forces, and the vibrations have a significant effect upon the stress distributions in the structure.

The vibration tests on the actual transmission towers are reviewed and as the results, the dynamic force of wind acting on the structure is introduced under the simple assumption. In conclusion, the mathematical analysis on a simple model is made.