

Movie Moire Method, applied to Internal Gravity Wave.

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In laboratory experiment, an internal gravity wave is propagating in stratified transparent fluid. When the wave is visualized, using a large-scale optical system, such as shuri-ten. But it can easily apply to rectangular tank, but it is need to rearrange the optical system to suit to certain shape of tank.

There is another method, called moire method. It has not such issue, but it requires strict setting of two stripes, combination of wave length of two stripes, and position of a camera.

Years before, we carried out visualization of internal gravity wave of QBO experiment, double exposure of distortion of one stripe, and digital processing makes moire pattern. A short of picture resolution and processing throughput does not make possible to real time visualization.

This time, We use digital Video camera and PC, and real time visualization is carried out.

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