

## Microwave-Induced Negative-Differential Resistance Observed in Josephson Junction

마이크로파가 조셉슨 접합에서 유발하는 부의 미분저항

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We have observed that a stable and reproducible Negative Differential Resistance (NDR) is induced by external microwave at low power in Nb/AlO<sub>x</sub>/Al/AlO<sub>x</sub>/Nb junctions. To study the erratic and puzzling NDR observations we have simulated Stewart-McCumber model in the region where the junction parameters are approaching chaotic region. Experimental results and simulation results will be presented with a discussion to draw a dynamic interpretation of the NDR.