

# Physical Modeling of Negative Bias Temperature Instabilities for Predictive Extrapolation

Vincent Huard,  
Philips Semiconductors, Crolles, France

Based on recent developments in the analysis of the NBTI degradation, the emphasis will be put on three main topics. First, several measurement methodologies will be compared to figure out how to totally assess the degradation in spite of the presence of transient effects. Second, due to an optimized measurement approach, the consequences on the understanding of underlying physical mechanisms will be described. Finally, the consequences of the various contributions on extrapolation laws will be discussed.

