

1023-35-1156

**Daniel T Onofrei\*** (onofrei@wpi.edu), 100 Institute Road, Math. Dept., Worcester, MA 01609,  
and **Bogdan Vernescu**. *Boundary layers in the study of the error estimates for the classical  
problem of homogenization. Improvement of the existing results and applications.*

In this talk we will present new results regarding the error estimates for the classical problem in homogenization using suitable boundary layer correctors. Compared with all the existing results on the subject, which assume either smooth enough coefficients or smooth data, our error estimate holds true for nonsmooth coefficients and general data. We also will talk about applications of these results and possible ways of generalization. (Received September 25, 2006)