1133-42-336 **Dorina Mitrea*** (mitread@missouri.edu), University of Missouri, 202 Math Sci Bldg, Columbia, MO 65211. *Quantitative characterization of VMO.*

Let BMO($\mathbb{R}^n$) denote the space of functions with bounded mean oscillations in $\mathbb{R}^n$ and let VMO($\mathbb{R}^n$) denote Sarason's space of functions with vanishing mean oscillations in $\mathbb{R}^n$. In this talk I will present a new characterization of the space VMO($\mathbb{R}^n$) as the closure in BMO($\mathbb{R}^n$) of classes of smooth functions contained in BMO($\mathbb{R}^n$) within which uniform continuity may be suitably quantified (such as the class of smooth functions satisfying a Hölder or Lipschitz condition). This improves on Sarason's classical result describing VMO($\mathbb{R}^n$) as the closure in BMO($\mathbb{R}^n$) of the space of uniformly continuous functions with bounded mean oscillations. As an application, the boundedness of Calderón-Zygmund operators on the space of functions of vanishing mean oscillations will be discussed.

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