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**Calvin C Moore\*** ([ccmoore@math.berkeley.edu](mailto:ccmoore@math.berkeley.edu)), Department of Mathematics, 970 Evans Hall, University of California, Berkeley, CA 94720 3840. *Virtual Groups 45 Years Later*.

The speaker will first briefly survey the scientific contributions of George W. Mackey as an introduction to this special session dedicated to his memory. The speaker will then focus on the concept of virtual group— an equivalence class of ergodic measured groupoids— that Mackey introduced in 1961. The talk will then follow the development and maturation of this notion over the following 45 years in several diverse areas of mathematics and by many mathematicians. Included will be its use in the study of von Neumann algebras,  $C^*$  algebras,  $K$ - theory, index theory, geometric group theory, foliations and foliated spaces, ergodic theory, and descriptive set theory. Mackey's term "virtual group" did not survive, but rather "groupoid" has taken its place. (Received September 05, 2006)