## 1044-47-36

W. A. Kirk\* (kirk@math.uiowa.edu), Department of Mathematics, University of Iowa, Iowa City, IA 52242. Common Fixed Points of Commuting Maps. Preliminary report.

We revisit a classical question about fixed points: When do two continuous commuting mappings on a closed interval have a common fixed point? It has long been known that in general the answer is negative. However in 1963 Ralph DeMarr showed that two commuting continuous mappings always have a common fixed point if they are lipschitzian with Lipschitz constants sufficiently near (but perhaps larger than)1. This brings the topic into the metric fixed point arena and it gives rise to a number of related questions. We also discuss the original paper of Brodskii and Milman in which the notion of normal structure is introduced. (Received July 23, 2008)