1010-97-11 **Hung-Hsi Wu*** (wu@math.berkeley.edu), Mathematics Department, #3840, University of California, Berkeley, CA 94720-3840. *Professional development: the hard work of learning mathematics*.

This talk takes as given the fact that the most urgent need of school mathematics education is for our teachers to be better informed mathematically. This calls for improvement in both pre- and in-service professional development. Of the two, the in-service alternative is by far the more promising. Because by tradition, inservice professional development does not focus on content, the talk will first discuss the nature of the mathematics that teachers need. The difference between ordinary upper division mathematics in universities and the mathematical knowledge that is relevant to the school classroom will be stressed. The talk will also discuss one model of in-service professional development that has been tried in recent years. (Received May 30, 2005)