

# 微积分在内地一些大学的实验

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微积分是数学教师的最大公因子，人人都可以发表议论。它有各种版本，但大同小异。总的说，如果要严格化，就会又长又难，对多数学生是一个沉重的负担。可是，如果放弃严格化，那就不是欧几里德意义下的“数学”了。

我们的问题是：能不能既严格，又短又易，不增加学生的负担？我们做了这方面的实验，一些结果表明，不仅大学生，高三学生也能掌握得好，事实上，这样的版本，最短的微积分，已由高三生向高二生讲解了，效果还不错。所以，借此机会，跟各位同事共同探讨。

## **Calculus test in some mandarin universities**

The Academy of Mathematics and Systems Sciences, CAS.

Qun Lin

Calculus is the greatest common factor among the mathematical teachers. Everybody can make comments about it. It has many versions, but is largely identical but with minor differences. In a word, it will be too long and too hard if we insist on the rigor. If we abandon the rigor, that is not the “mathematics” in the Euclid meaning.

Our problem: Can we make it both rigorous and short and easy without increasing the students' load? We have made some tests which show not only the undergraduates but the senior high school students can grasp it. In fact, such a version, the "shortest calculus", has been talked to 11<sup>th</sup> grade high school students by a senior high school student. So, we would like to take this opportunity to discuss with our calculus colleagues.