

# Journal of Fan Zhuo for Fall 2007

## Week 1. September 10-16

The first task assigned to me was to write a mathematical autobiography. This was my first time to use PCTEX to write something. I found lots of differences between PCTEX and what I had used in China, which is CTEX. But, I got used to it soon.

## Week 2. September 17-23

This week Dr. Martin gave us a paper on trigonometric identities and sums of separable functions. This paper helped me to have a general picture of the research of this group.

## Week 3. September 24-30

The task for our group this quarter is to understand the basic idea of 'Tensor rank and the ill-posedness of the best low-rank approximation problem'. I focused on the definition of the rank this week. I hoped to have a clear understanding of the tensor.

## Week 4. October 1-7

We had two group meetings on Wednesday and Sunday. The purpose of these meetings were to understand the abstract of the 'Tensor' paper and help each other to clarify the definition and expression of tensor.

## Week 5. October 8-14

I had made a presentation on the Eckart-Young Theorem. I really appreciated my teammates for their help. They corrected lots of references about this theorem for me.

## Week 6. October 15-21

This week, I read the summary of this 'Tensor' paper. The summary gave us the objectives of this article. But, it was difficult to understand all the objectives before finishing reading this article.

## **Week 7. October 22-28**

Our team continued with reading the 'Tensor' paper. I began to prepare for the next presentation on section 1.2: Relation to prior work. I got a clear understanding of the relationship between this article and previous related articles.

## **Week 8. October 29- November 3**

I prepared my quarter journal this week. And, I helped the members of other group to use PCTEX preparing presentation. I found the PCTEX slide was easier to use than my CTEX edition.