Farewell, my favorite coauthor

Fan Chung *

I was surprised when I was told (by Steve Butler) that Ron and I have 101 joint papers. That is far more than I expected. I was so delighted to gain an extra digit and I know exactly what Ron would then have said, "101 is a great number. It is a prime." His love for numbers was perpetual. He could find interesting facts for any number that he came cross. He remembered mundane phone numbers and always found funny facts in license plates. In fact, his car had the license plate "`NUMBER`". The well-known "Graham's number" was, at the time, the largest number which had appeared in a mathematical proof.

After Ron left, there are too many things that I missed about him — his mischievous deeds, crazy new ideas, hilarious jokes, and, most of all, his unwavering support even under various stressful situations. Such scenarios included losing my purse on the train (among other places), forgetting to bring my passport (multiple times), car accidents (my fault); all the while he was particularly charming and calm. Among the numerous things that are hard to part with, the one I miss most is talking math with Ron. It was very hard to say goodbye to my favorite coauthor.

When we worked together, our success rate was amazingly high. Come to think about it, we rarely failed in our joint projects. The reasons were quite simple. We complemented each other and the math got better. Some of the problems that we previously worked on would never bear fruits if only one of us was taking it on. It is the exceptional case of "one plus one is more than two". One of the main reasons for success was tenacity. On the shelf besides our working big table, there was a sign saying "Never, never, never give up" that Ron acquired a long time ago. When we struggled with a problem, usually one of us would not let it die. Some of the equations or polynomials were so monstrous, one person alone would surely have run out of energy. Most of the time though, it was advantageous that we had different views and approaches. Ron was extremely good at detecting patterns in chaos. It was his job to check if the conjecture could be false or should be modified either by examples or computation. It was my job to pull together the strategies or methods to prove the conjecture. It was his job to find those hard-to-find references (in the days without Google Scholar). It was my job to chew through the references. We shared the exhilarating moments of having new ideas, finding alternative directions, using new methods, or solving problems, and we also enjoyed the process of struggling for uncovering the truth.

Now and then we had coauthors' spats, mostly about writing. We argued about what should be in the abstracts since it was the most important part of the article. For our joint papers, I usually wrote the first draft. Then Ron wrote the second draft, and then we alternated. In the early days of our collaboration, that could mean total rewrites. For

*University of California, San Diego

our first paper, I rewrote it eight times. (Later on when I told Henry Pollak the story of rewrites, he told me his first paper was rewritten 24 times.) As years went by, in some cases I would be so happy when Ron made very few changes of my draft. I distinctly remembered about the joint paper by Ron, Martin Gardner and myself on Steiner grids. After I wrote up the whole paper, it was sent to Martin for comments. Martin wrote back saying, "I couldn't find a single word to change". That was one of my greatest achievements. Later on the additional surprise was the Allendoerfer Award given by MAA for this joint paper.

In remembrance of my favorite coauthor, I here relate what is in a webpage I prepared about Ron `http://www.math.ucsd.edu/~fan/ron/kayak.html` which includes many related links about Ron.

> On the day before Ron left, he talked over the phone with Steve Butler and Persi Diaconis about their work in progress concerning certain random walks on Z_p. Ron pointed out that the behavior was very different for $p \equiv 1 \pmod 4$ versus $p \equiv 3 \pmod 4$ and he suggested various ways to get computational data.
>
> Later in the day Ron exchanged email with Sam Spiro about their joint paper (with Persi and others on card guessing) which is near completion. He wrote email to Judith Ng including the photo of kayaks and a photo of me in the kitchen looking back at him through the Google Nest Cam.
>
> On the wall in Ron's office, he hung a poster of squares arranged in 90 lines each consisting of 52 little squares. Later on he modified it so it contains 100 lines. (He sometimes joked that his grandma lived to 99 and then was hit by a truck.) The rule is to fill one square each week. Thus, one can see how many squares are left and how finite and precious life is. He only used 84 lines but every square was gloriously filled.