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Ed Sandifer: An Eulerian Marathoner

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Abstract

Ed Sandifer was the founding secretary of the Euler Society. He published a remarkable quantity of Euler scholarship at the time of Euler's Tercentenary in 2007.

Charles Edward (Ed) Sandifer was born on December 6, 1951. Originally from Ottumwa, Iowa, he grew up in Oklahoma, Minnesota, and New Jersey, where he graduated from high school in 1969. In 1973, he graduated from Dartmouth College with a mathematics degree and went on to pursue a Ph.D. at the University of Massachusetts, Amherst.

As a grad student, Ed was especially interested in Algebra, and he wrote his dissertation, *Finiteness in Noetherian Rings of Invariants*, under the direction of John Fogarty. His fellow graduate students from that era were not surprised that Ed became a historian of mathematics, because he was always attracted to people and their stories, especially how their work fit into a larger narrative.

Ed met his future wife Theresa, née Morgan, when they were both graduate students at Amherst. They were married in 1979 and raised two children, Elizabeth and Victoria.

Ed began teaching at Western New England University in 1979 where, in addition to teaching and research, he was instrumental in establishing the men's cross-country program. He became the team's first coach, spending 4 years in that role before he accepted a position at Western Connecticut State University. Ed remained at WCSU until his retirement in 2009, rising to the rank of full professor.

Ed's interest in the history of mathematics blossomed during his time at WCSU. He eventually participated in the NSF-funded Institute for the *Use of History in the Teaching of Mathematics* in the summers of 1996, 1997 and 1999. By then, he was already focusing his research on the work of Leonhard Euler, with an eye towards the coming Tercentenary in 2007 (the 300th anniversary of Euler's birth).

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[a]Rick Cleary (rcleary@babson.edu), a friend of Ed's since grad school days, contributed to this article.

During the late 1990s and the 2000s, Ed spent every available free day in the Yale libraries, reading Euler's papers and books in hard copy. In those days, they were not yet available on the internet. He also traveled widely, speaking at conferences and giving colloquia at colleges and universities. I first met Ed when he spoke at my college (Adelphi University) on "Two Tales of Divergent Series" in February 1999.

During this time, Ed was effectively acting as an evangelist for Euler studies, encouraging mathematicians and historians to study the works of Euler and his contemporaries, to make Euler's work available in English translation, and to prepare for a grand celebration in 2007. He recruited a number of people to these causes, including me. Probably his most successful presentation was the one that he made at his alma mater, Dartmouth College, in or about 2001. As a result of his talk, Lee Stemkoski and Dominic Klyve were inspired to attend the first meeting of the Euler Society in Rumford, Maine, in the summer of 2001. Ultimately, as a result of the encouragement they received from Ed and others at the Euler meeting, Lee and Dominic were led to create the Euler Archive. They recruited other graduate students from Dartmouth's mathematics department into the project, including the current secretary of the Society, Erik Tou, who began attending Euler Society meetings in 2002.

The Euler Society was conceived at the 2001 Joint Mathematics Meeting in New Orleans, Louisiana, where Bill Dunham and Fred Rickey had organized a special session at the meeting on *Mathematics in the Age of Euler*, where Ed spoke on "Euler's Fourteen Problems." Over dinner one evening, Ed, Ron Calinger, and John Glaus discussed the idea of establishing an academic society focusing on the work and influence of Euler and his contemporaries. As, a result, the Euler Society was born and Ed was chosen to be the Society's first Secretary.

By this time, Ed's scholarly research on Euler was shifting into high gear. He was working on two major projects simultaneously. The first was a monthly column that debuted on the MAA website in November 2003, called *How Euler Did It*. Typically, Ed would focus on a single paper or one of Euler's famous theorems, and explain how Euler actually handled the problem or proved the theorem. All of Ed's columns are now freely available on the Euler Archive.

In addition, Ed was hard at work on what would become *The Early Mathematics of Leonhard Euler*. This monograph, published by the MAA in 2007, is an overview of Euler's first Petersburg period (1727-1741), viewed largely through the lens of the papers on mathematics (as opposed to physics and other topics) that he wrote during that time. Every one of these papers is summarized and their important results are presented in the original style. These chapters are interleaved with "Interludes," providing historical context for the period in

question, as well as the important events in Euler's personal and professional life.

The *Early Mathematics of Leonhard Euler*, along with the first volume of Ed's *How Euler Did It* columns, were published in 2007 as part of the 5-volume *MAA Tercentenary Euler Celebration* series. Additionally, Ed was a co-editor, along with Larry D'Antonio and me, of *Euler at 300*, a collection of Euler papers presented at various academic meetings between 2001 and 2006, beginning with Dunham and Rickey's session on *Mathematics in the Age of Euler*. I like to say that Ed was single-handedly responsible for 47% of the content of the MAA's Tercentenary series.

Ed was an avid runner. He was always up early at academic meetings so that he could run with his friends from other parts of the country. It was while he was at UMass Amherst that Ed's running career really took off. In a happy coincidence, the Mathematics Department had several serious runners and a regular group to train together several times each week. Ed became an officer of the local running club, he organized races and he found a wonderful balance of competing seriously while enjoying the social aspects of the running community. During these years Ed was a top contender in local road races, set a couple of esoteric age group records, and his consecutive day streak, which started during his undergraduate years, began to attract attention. The streak eventually reached over 36 years. Perhaps even more impressive was his string of Boston marathon finishes. Ed qualified for, and ran, that prestigious event every year for 37 years, from 1973 through 2009, and had a personal marathon best of 2 hours, 33 minutes. Ed was named to the Newtown, CT, Sports Hall of Fame in 2003.

After the Tercentenary celebrations, Ed continued to write his *How Euler Did It* columns for the MAA. He also branched out somewhat and co-authored annotated translations of Cauchy's *Cours d'analyse* and L'Hôpital's *Analyse des infiniment petit*. Ed was still running on all cylinders when, in August 2009, he suffered a stroke shortly after returning from MathFest in Portland, Oregon, where he gave an address at the opening banquet called "Prove it Again, Sam." His *How Euler Did It* columns from March 2007 onward were collected by the MAA and published in a second volume, called *How Euler Did Even More* (2015).

Now a Professor Emeritus, Ed still lives in Newtown, CT, with his wife Terry, also a retired professor of mathematics, in the home where they raised their children.