

1125-B5-1166

**Mitchel T. Keller\*** ([kellermt@wlu.edu](mailto:kellermt@wlu.edu)), Department of Mathematics, Washington & Lee University, 204 W Washington St, Lexington, VA 24450. *The Journey of one Open Source Applied Combinatorics Text.*

Like many of today's open source texts, *Applied Combinatorics*, written jointly with William T. Trotter, began as a set of course notes to replace a commercial textbook. It gradually evolved while the presenter was a doctoral student, and in 2010 a free PDF was released that contained a full-developed set of exercises for almost all chapters. In the intervening years, a clear statement of a Creative Commons license was added, and the text has been adopted at a number of institutions throughout North America. After a 2016 workshop at the American Institute of Mathematics, we decided to convert the text from L<sup>A</sup>T<sub>E</sub>X to MathBook XML because of the ease of creating a reader-friendly HTML version (with interactive SageMath components) in addition to PDF and inexpensive print on demand versions. This new version was released in time for Fall 2016 classes. This talk will discuss the evolution of the text, experiences using it in the classroom, and the challenges and benefits of the recent conversion to MathBook XML. To view *Applied Combinatorics*, visit <http://rellek.net/appcomb/>. (Received September 15, 2016)