1046-91-102 Karl-Dieter Crisman* (karl.crisman@gordon.edu). Undergraduate research in the mathematics of voting and choice using Sage. Preliminary report.

The mathematics of voting and choice is a good way to draw talented undergraduates into research in the mathematical sciences. We describe an REU in this field where use of open source mathematical software (specifically, Sage) led to more rapid progress in research, and suggest directions for further integrating open source software and this increasingly computational area. (Received July 22, 2008)