

Title: Computational Fair Division

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I will present an exciting new interaction between computer science and fair division theory, which is leading to some of the first-ever applied fair division methods. In particular, I will explain how computational thinking provides a novel perspective on the classic problem of allocating indivisible goods, and how these ideas are integrated into Spliddit (<http://www.spliddit.org>), a not-for-profit fair division website that aims to make the world a bit fairer. I will also describe our ongoing work with California school districts to develop a practicable mechanism for fairly and truthfully allocating classrooms to charter schools, which has given rise to novel theoretical questions as well as nontrivial computational challenges.