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**John Paul Cook\***, jpcook@usao.edu. *Making the Abstract Concrete: Teaching Rings and Fields in a Liberal Arts Mathematics Course.*

While the theory of rings, integral domains, and fields is often out of reach of the typical undergraduate student, the ideas that characterize and differentiate between these structures are quite concrete and accessible. This talk will report on an effort to give students in a freshman liberal arts mathematics course (at a public liberal arts university) a discovery- and inquiry-based glimpse into the core ideas of abstract algebra. In particular, the results will include how these liberal arts students with no prior exposure to advanced mathematics built upon their intuitive notions of solving equations to reinvent and come to terms with the basic structures of ring theory. (Received September 24, 2012)