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Don Spickler* (despickler@salisbury.edu), Department of Mathematics and CS, Salisbury University, Salisbury, MD 21801. *PascGalois JE: Visualizing Group Structures*.

The PascGalois project uses both one and two dimensional cellular automata over finite group structures to help students visualize many key and sometimes difficult topics in abstract algebra, such as, subgroups, normal subgroups, quotient groups and isomorphisms. The idea is to create an image for a group structure that can act as a signature for that group as well as display the group's structural properties. The PascGalois JE program was specifically designed to make the creation and manipulation of these images quick and easy for students. In addition, the program offers several advanced exploration features suitable for undergraduate research projects. In this talk we will discuss the current features of the program, pedagogic methods for its implementation into an Abstract Algebra course and the direction of future versions. (Received September 25, 2006)