

1135-F1-1526 **Alice E Petillo*** (alice.petillo@marymount.edu), 2807 N Glebe Road, Arlington, VA 22207.
An Exploratory Approach to Polyhedra Using the Open-Access Software, Archimedean.

Polyhedra have appeared in the intersection of mathematics and art on an ongoing basis across time and cultures, including today's digital culture. As we remember the contributions of Father Magnus J. Wenninger, many of us hope to inspire future generations of students to see and experience the beauty of polyhedra in the world around them. Archimedean, an open-access 3D construction and rendering tool, has an exploratory approach that allows users to virtually construct, transform and analyze polyhedra. Dr. Alice Petillo will share how the Archimedean program has been used in Liberal Arts Core mathematics content classes to introduce undergraduate students to known polyhedra along with new objects that are the result of allowing faces to traverse the surface more than once before joining edges. (Received September 22, 2017)