Exploring the Beauty of Mathematics with Mathematica

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1. KEYNOTE ABSTRACT

This talk will use the computational tool Mathematica (www.wolfram.com) to investigate the aesthetic enjoyment to be gained from mathematics. It will consider the intrinsic beauty found in mathematical proofs and visualisation of mathematical forms, showing how advances in technologies, such as mechanical computation, two and three-dimensional printing, as well as the programmable computer, help to widen access and deepen insight. Finally, it will examine the boundaries and synergies between mathematics and creative expressions such as art, music and architecture, taking examples drawn from antiquity through to the modern era.

2. BIBLIOGRAPHY

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