

ZMATH 2015b.00639

Stephenson, Paul

Euler's brick.

SYMMetryplus 2014, No. 55, 2-5 (2014).

From the text: The best known chair in mathematics at Cambridge is the Lucasian. Newton was the second holder of the post, Stephen Hawking the most recent. The fourth was a man blind from infancy called Nicholas Saunderson. A problem which intrigued people in the eighteenth century is named after its most distinguished student, Euler, but Saunderson laid the groundwork, as we shall see. The problem is to find a cuboid where both the edges and the face diagonals are integral.

Classification: F60 G40 G70

Keywords: Euler bricks; edge perfect bricks; diagonally perfect bricks; Pythagorean quadruples; Diophantine equations; parametric equations; Pythagorean triples; sums of squares; cuboids; solid geometry; integral length; diagonals; triangles; perfect bricks