
Summary: Guillotine partitions play an important role in many research areas and application domains, e.g., computational geometry, computer graphics, integrated circuit layout, and solid modeling, to mention just a few. In this paper, we present an exact summation formula for the number of structurally-different guillotine partitions in $d$ dimensions by $n$ hyperplanes, and then show that it is $\Theta((2^d - 1 + 2\sqrt{d(d-1)})^{n/3})$.  

MSC: 68R05 Combinatorics in computer science

Keywords: combinatorial problems; guillotine partitions; binary space partitions

Software: Maple

Full Text: DOI

References:

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