

DIAMETER BOUNDS FOR EQUAL AREA PARTITIONS OF THE UNIT SPHERE*

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Abstract. The recursive zonal equal area (EQ) sphere partitioning algorithm is a practical algorithm for partitioning higher dimensional spheres into regions of equal area and small diameter. Another such construction is due to Feige and Schechtman. This paper gives a proof for the bounds on the diameter of regions for each of these partitions.

Key words. sphere, partition, area, diameter, zone

AMS subject classifications. 11K38, 31-04, 51M15, 52C99, 74G65

*Received January 10, 2008. Accepted for publication December 10, 2008. Published online on March 6, 2009. Recommended by V. Andriyevskyy.

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