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A PARTITION OF THE UNIT SPHERE INTO REGIONS OF EQUAL AREA AND SMALL DIAMETER*

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Dedicated to Ed Saff on the occasion of his 60th birthday

Abstract. The recursive zonal equal area sphere partitioning algorithm is a practical algorithm for partitioning higher dimensional spheres into regions of equal area and small diameter. This paper describes the partition algorithm and its implementation in Matlab, provides numerical results and gives a sketch of the proof of the bounds on the diameter of regions. A companion paper gives details of the proof.

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

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