Mathematics Calendar 79

SPRINGER-VERLAG BERLIN HEIDELBERG NEW YORK
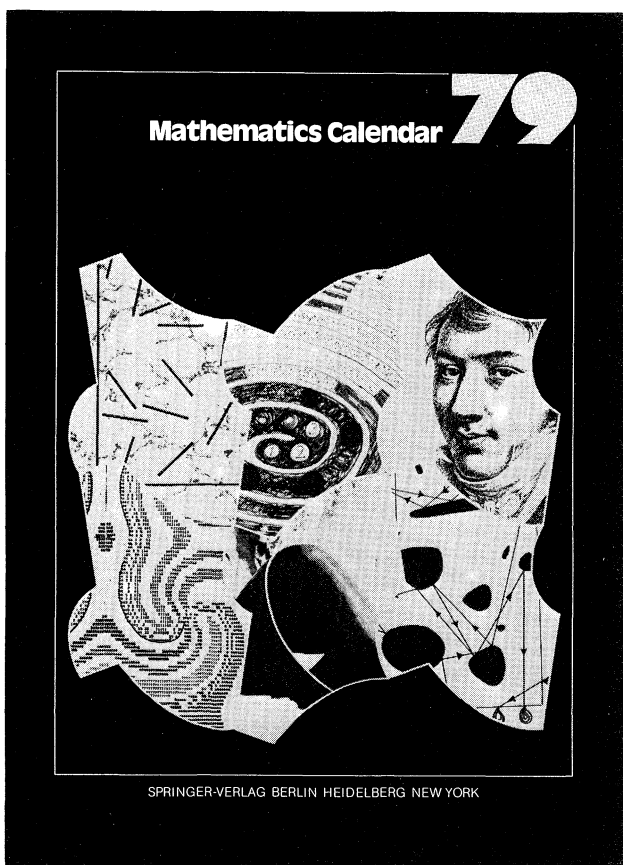
Contents:

Sinai's Billiard describes a mathematical object corresponding to a simplified gas

Cuts and Congruence challenges you to bisect given shapes into congruent halves

Turning a Sphere Inside Out by a motion creating neither holes nor creases (in color)

Roots of Complex Analysis – Gauss, Cauchy, Weierstrass, Riemann

Arithmetic Progressions links combinatorics and ergodic theory

endless ribbon – an artist's intriguing description of his personal discovery of the Möbius strip

Connelly's Flexing Sphere – a counterexample to the rigidity conjecture for polyhedra (in color)

Calculating a Breathtaking Surface – a stochastic method for calculating the surface area of lung alveoli

Rotating Reactions in chemical and electrical activity are visualized by a computer printout (in color)

Tiling the Plane describes the Regular Tiling Problem and its solution

Dimensions and Fractals – pathological curves and other monsters

Early Algebra – Omar Khayyām's significance to mathematics

Seven of these themes are represented in the cover illustration of the calendar (above).

Communications in

Mathematical

Physics