

About the Cover

The mathematics of plant life

This month's cover illustrates a fine example of phyllotaxis, and accompanies John Adam's review of *The Mathematics of Life* in this issue. The literature refers often to sunflowers exhibiting spectacular Fibonacci patterns, but photographs of them seem to be rare. This one comes from John Palmer, formerly on the faculty of the University of New South Wales, Sydney, now retired. He writes:

“Early published studies of sunflower head seed patterns, were mainly mathematical. My research was into positional control of the floral organs in the growing sunflower head, with the objective of understanding how the prominent seed row patterns shown in the ripe sunflower head in my photograph are produced. The rows turning to the left and right conform to the Fibonacci system. From the rim, merging seed row pairs 144:89, 89:55, 55:34 can be indentified. Towards the head's center, the seed row patterns are disturbed by asymmetry and double seeds.”

—Bill Casselman
Graphics editor

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