



# Adding a New Wrinkle

Some people actually appreciate wrinkles. Whether in skin, fabrics, or plastic wrap, wrinkles form because stretched materials assume shapes that minimize their bending energy. Geometry and partial differential equations are two of the mathematical subjects used in the study of wrinkling. This study helps in understanding a wide range of topics, such as the behavior of thin films, how flowers bloom, and—in the case of the items pictured—the possibility of objects changing shape in flight to improve their aerodynamics.

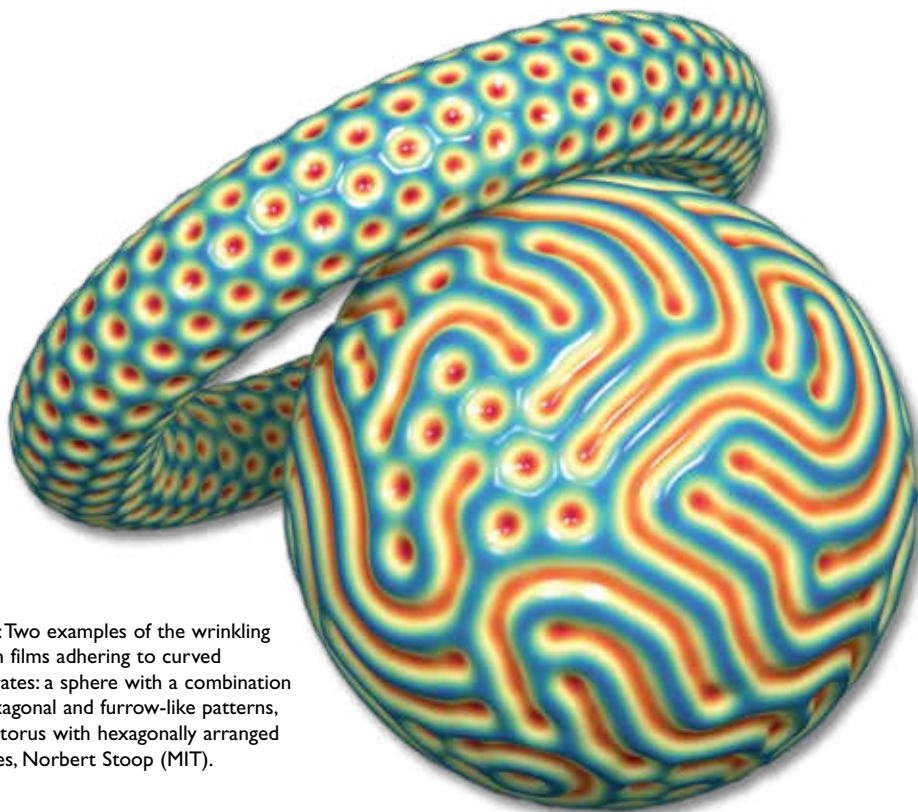


Image: Two examples of the wrinkling of thin films adhering to curved substrates: a sphere with a combination of hexagonal and furrow-like patterns, and a torus with hexagonally arranged dimples, Norbert Stoop (MIT).

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