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horizontal angle $0 \leq \theta \leq 2\pi$
 vertical angle $0 \leq \phi \leq \pi$
 spherical coordinates
 t
 time

$$h(\theta, \phi, t) = r(\theta)l(\phi, t)$$

$$W_8(\theta, \phi, t) = aA(\phi)r(\theta)R(\phi, t)\mathbf{8}(8\theta)$$

deformation of
base sphere

rotation about
the z-axis through
angle θ

deformation of principal meridian
as the center of a twisting belt,
similar to the one in Outside In

Degree 7 polynomials in ϕ
with coefficients in t
were used in this animation.

the wavy surface
to be added to the base
sphere as corrugation

amplitude of wave
 $a = 0.1$
in the animation

$$A(\phi) = 1 - \cos(2\phi)$$

wave grows from 0
at the poles to
its maximal value
at the equator

Degree 4 polynomials in ϕ
with coefficients in t
were used in this animation.

deformation of the
orthonormal frames
along the principal
meridian following
the tangent frames
of the center of
the twisting belt

$$\mathbf{8}(s) = \langle \sin(2s), 1 + \cos(s), 0 \rangle$$

the figure-8 curve used to
generate the wavy surface

figure-8 traversed 8 times
along each parallel