

No es la primera vez que hablamos en ::ZTFNews del ingeniero y artista [Jos Leys](#). Sus extraordinarias animaciones de diferentes nociones matemáticas son una delicia: bellas y técnicamente perfectas. Recordemos las de

[*Dimensions*](#)

,

[*Caos*](#)

, sus

[*fractales*](#)

(y

[*más fractales*](#)

), sus

[*teselaciones*](#)

o la

[*banda de Möbius en relación con un canon retrógrado de Bach*](#)

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Galleries :



The Klein bottle

Construction of a Klein bottle by joining the edges of a rectangle.

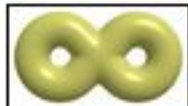
Added on 2010-02-10



The figure 8 Klein bottle

The less-known form of the Klein bottle...

Added on 2010-02-10



From an octagon to a genus 2 surface

An octagon can be bent into a genus two surface (a surface with two holes) by joining the sides with the same colour..

Added on 2010-02-10



From a 40-gon to a genus 10 surface.

A polygon with 40 edges can be bent into a genus 10 surface (a surface with 10 holes).

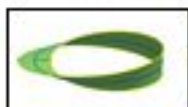
Added on 2010-02-10



The cross-cap.

The construction of the cross-cap.

Added on 2010-02-17



Moebius strip and cross-cap

Visual proof that a Moebius strip is homeomorphic to a cross-cap with a disc removed.

Added on 2010-03-01



Connected sum of two real projective planes

Visual proof that the connected sum of two real projective planes is a Klein bottle.

Added on 2010-02-10



Dodecahedral tessellation of the hypersphere

A dissection of the 120 cell in twelve rings of 10 dodecahedra. Two sets of six rings form 2 solid interlocked tori. The film starts by showing the 600 cell, the dual of the 120 cell.

Added on 2010-02-21



Moebius-Klein

Two Moebius strips make a Klein bottle

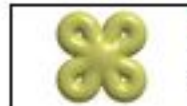
Added on 2010-02-10



Multiple Klein bottles

Linked Klein bottles. Note that the number of bottles needs to be uneven in order to have a boundary surface.

Added on 2010-02-10



From a 16-gon to a genus 4 surface

A polygon with 16 sides can be formed into a surface, a surface with 4 holes.

Added on 2010-02-10



The real projective plane and a strip

The real projective plane minus a disc is homeomorphic to a strip.

Added on 2010-02-10



The Boy surface

The construction of a Boy surface.

Added on 2010-02-17



The Klein Quartic II

The transition from a hyperbolic 14-gon surface, while preserving the tiling by 21 triangles.

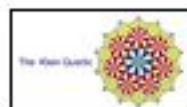
Added on 2010-02-10



Connected sums of real projective plane and torus or Klein bottle.

Visual proof that the connected sum of a real projective plane and a torus, and the connected sum of a real projective plane and a Klein bottle are homeomorphic.

Added on 2010-02-20



The Klein Quartic I

How this hyperbolic tiling can be folded into a surface.

Added on 2010-02-10

Enlace a la web de Jos Leys: <http://www.josleys.com>
Enlace a la web de la Facultad de Ciencias Exactas y Naturales (FCEyN) de la Universidad de Buenos Aires (UBA): <http://www.fceyn.uba.ar/>