ArtiE-Fract, used by Anabela Costa, visual artist
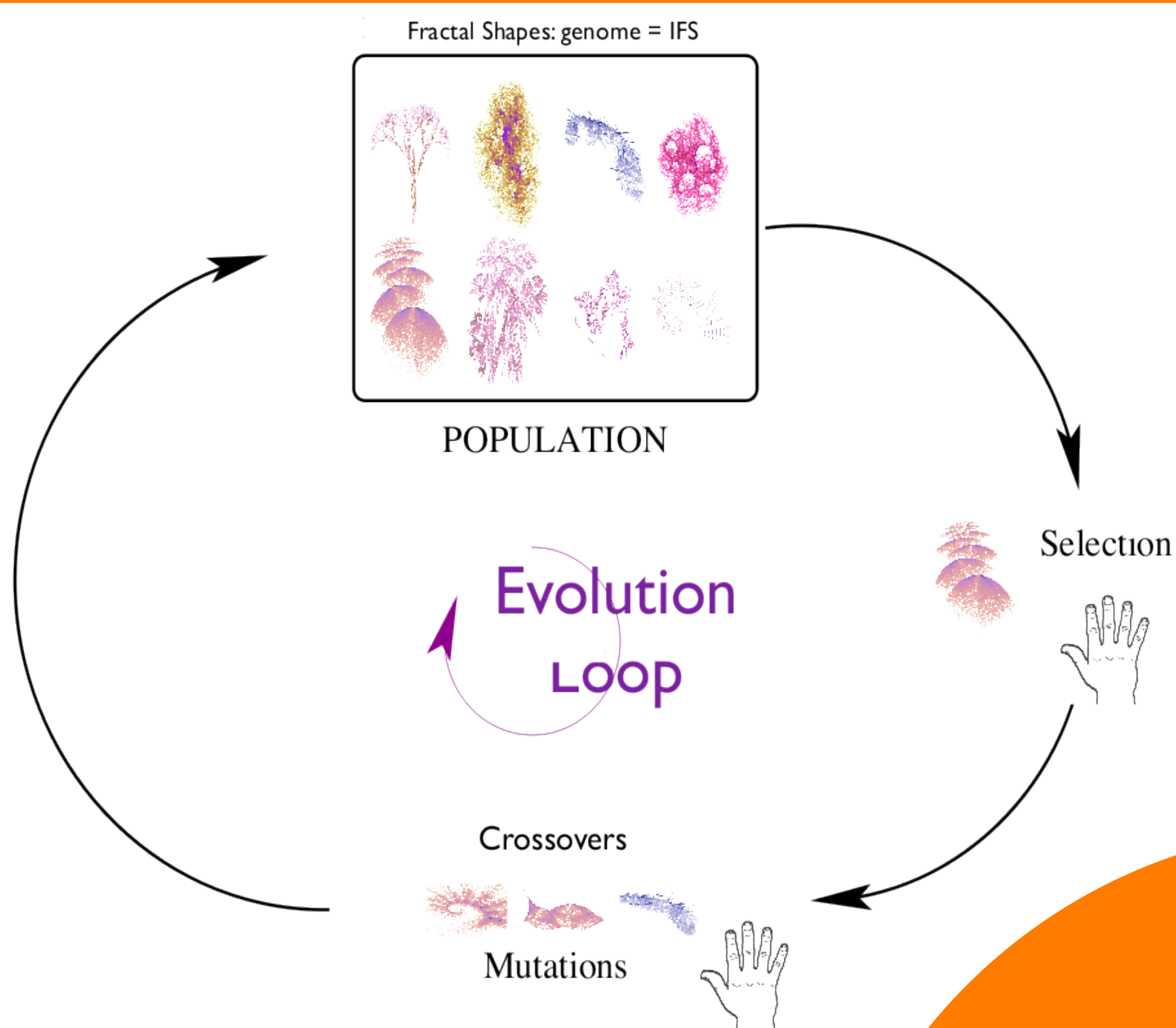
Evelyne Lutton
INRIA Saclay-Ile-de-France, AVIZ team, France

**Anabela Costa**
http://wwwanabelacostacom.blogspot.fr/p/landscape-2012.html

ArtiE-Fract : an interactive tool for shape design

Fractal Shapes: genome = IFS

POPULATION

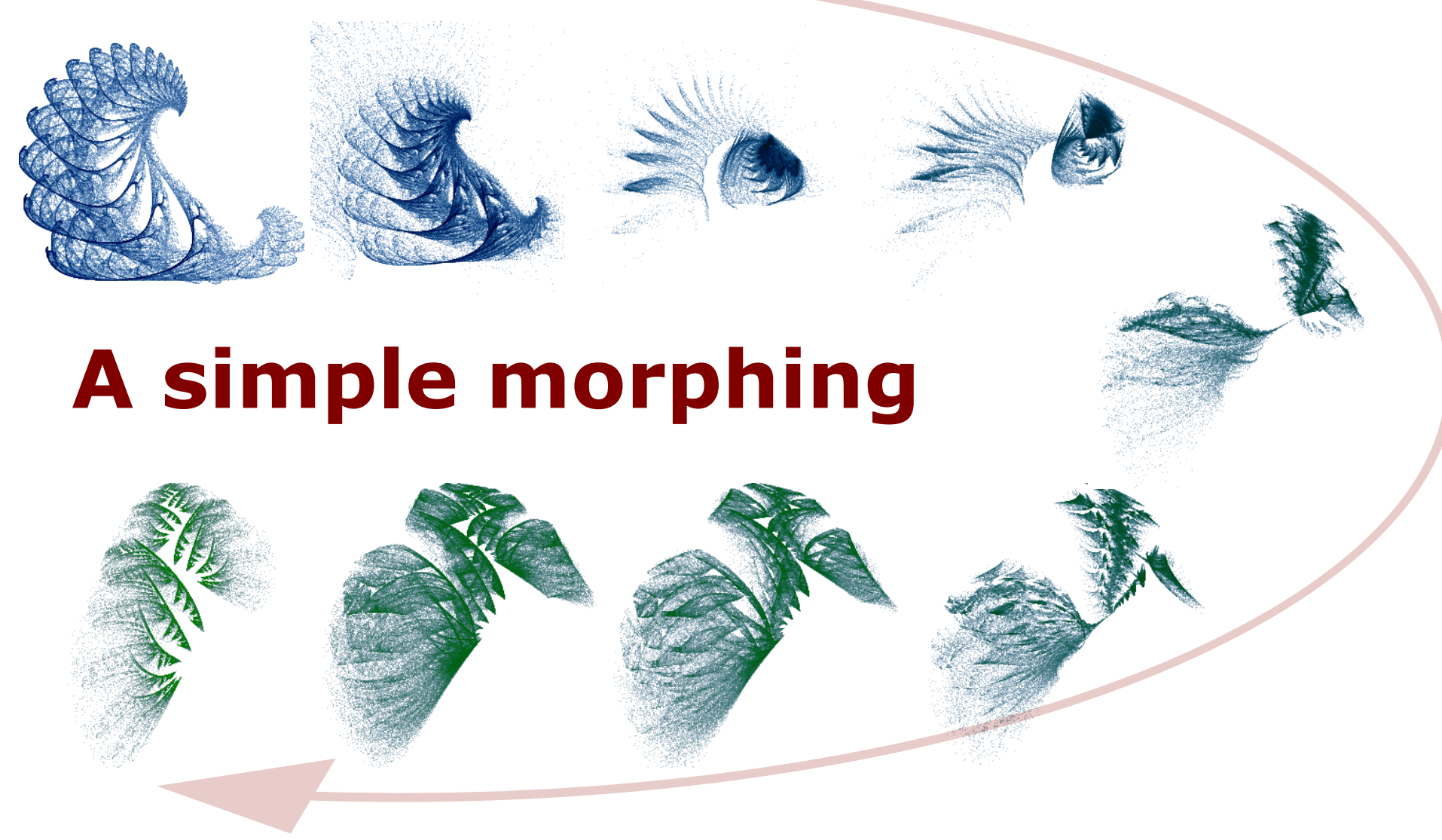Evolution Loop

Selection

Crossovers

Mutations

A population of images is evolved, submitted to external pressure (aesthetic evaluation), offsprings of the best ones are obtained by mutation and crossover, to build a new generation.

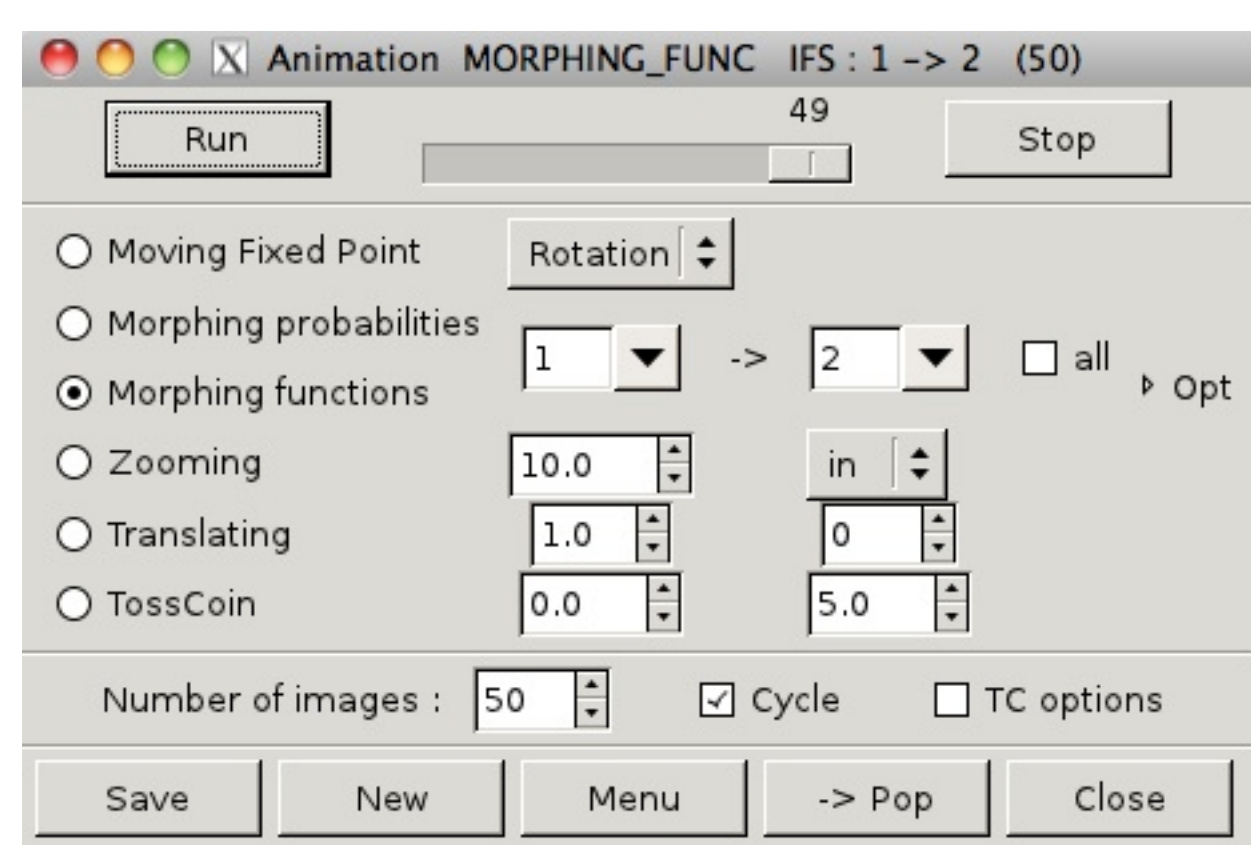## Simulated evolution of a population of fractals

Mutation

Crossover

+
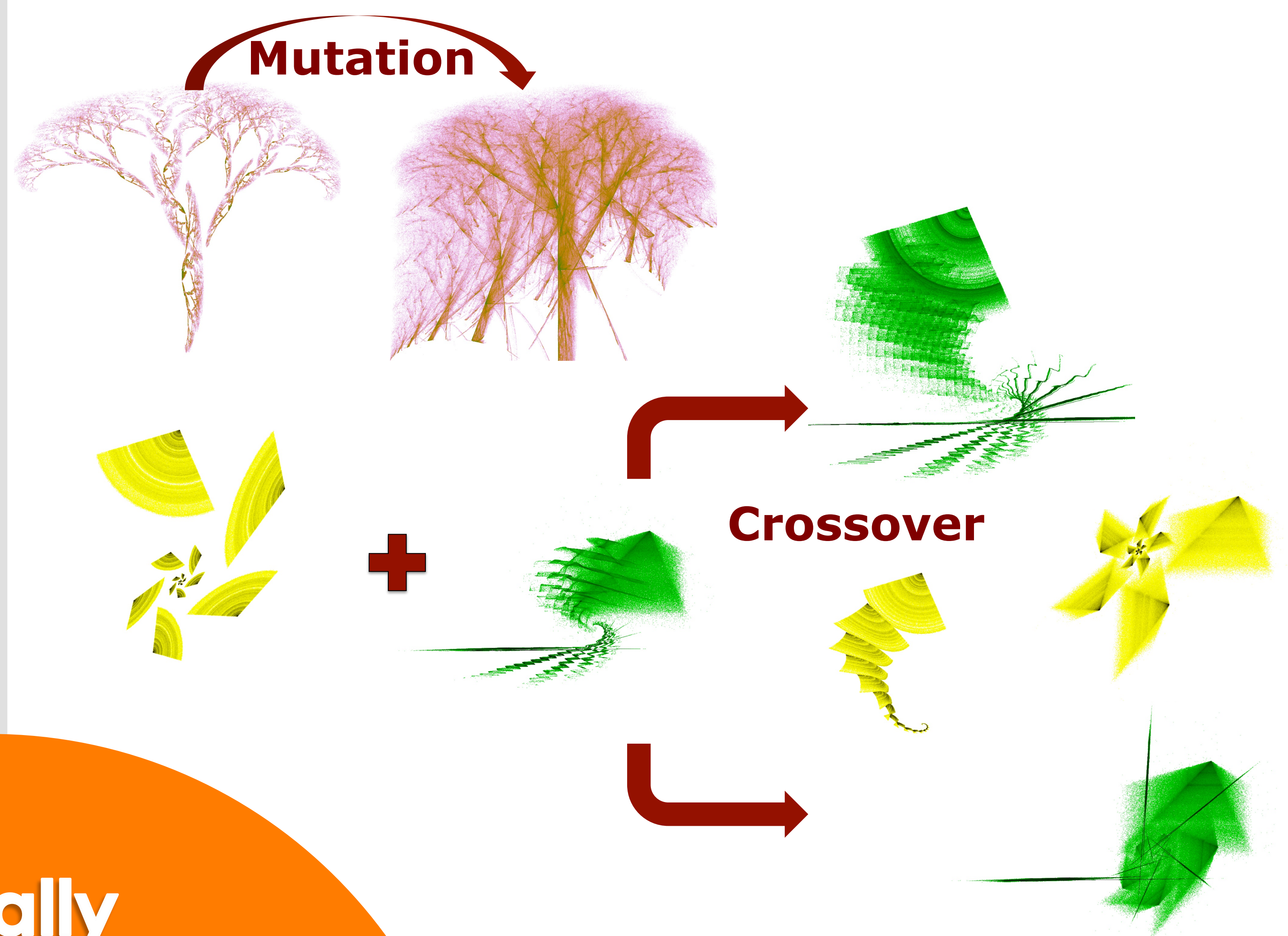
The genetic operators can be randomly or manually controlled

Initially developed for static images design, ArtiE-Fract is also convenient for video creation.

The video sequences design tool

A simple morphing

Animation MORPHING_FUNC IFS : 1 -> 2 (50)

| | | |
| Run | 49 | Stop |

- Moving Fixed Point — Rotation
- Morphing probabilities — 1 -> 2 — all — Opt
- Morphing functions
- Zooming — 10.0 — in
- Translating — 1.0 — 0
- TossCoin — 0.0 — 5.0

Number of images : 50 — Cycle — TC options
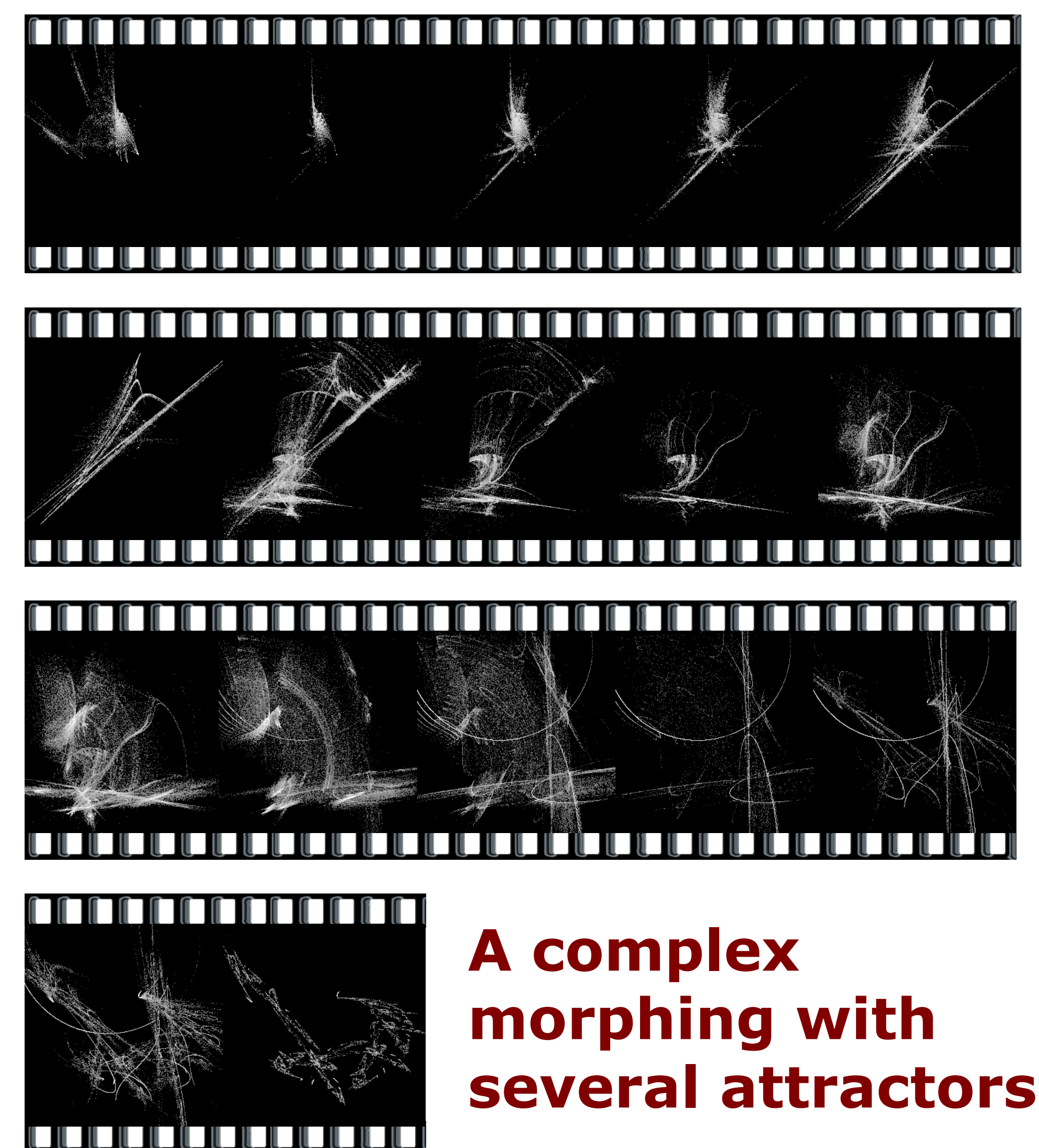
Save | New | Menu | -> Pop | Close

Various animation tools are available: linear morphing of functions, of probabilities, controlled movements of fixed points, zooming, or progressive computation precision.

Landscapes : the making of

A complex morphing with several attractors

- Focus on aesthetic of movements more than on image content.

- Evolved sequences are used as raw material for video montage.

Inria
INVENTEURS DU MONDE NUMÉRIQUE