Baby Mandelbrot sets are born in Cauliflowers. Adrien Douady (Université de Paris-Sud)

For any complex number c, the *filled Julia set* K_c is the set of points which do not escape to infinity under iteration of the map $z \mapsto z^2 + c$. It is a fractal set which depends on c . The *Mandelbrot set* M is the set of values of c for which K_c is connected.

The correspondence $c \mapsto K_c$ is not continuous. A big discontinuity occurs for $c = 1/4$, the cusp of M . The set K_c for $c = 1/4$ is known as the *cauliflower* ; when c is changed to $1/4 + \epsilon$, it undergoes asudden change called *implosion.*

There is an infinite number of copies of M in M , and there are whole sequences of them. For instance, if M' is a copy of M in M , there is a sequence (M_n) of smaller copies tending to the cusp of M' . For this sequence a special phenomenon occurs : each M_n is encaged in a nest of decorations, the first one being a copy of an imploded cauliflower, the other ones being the same object duplicated, quadruplated, etc, and wrapped around M_n

We shall show and describe this phenomenon,and try to explain how it is produced.