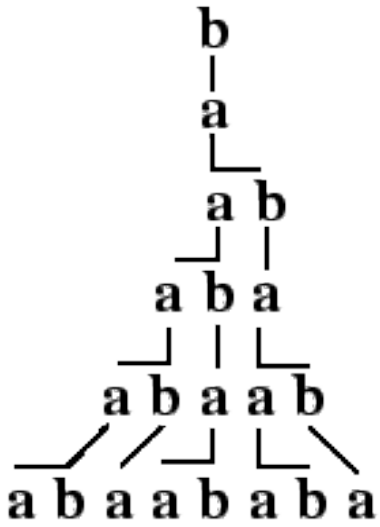
$G=(V,w,P)$ mit
$V=\{a,b\}$, $w=a$ und $P=\{a\to ab, b\to a\}$



Bakterie *Anebaena catenula*. Die Symbole a und b repräsentieren in welchem Wachstumsstatus eine Zelle sich befindet, und die Indizes l und r , die Polarität der Zelle, die beschreiben in welcher Position die Tochterzellen produziert werden.

$G=(V,w,P)$ mit, $V=\{a_r, a_l, b_l, b_r\}$ $w=a_r$ und die Produktionen:

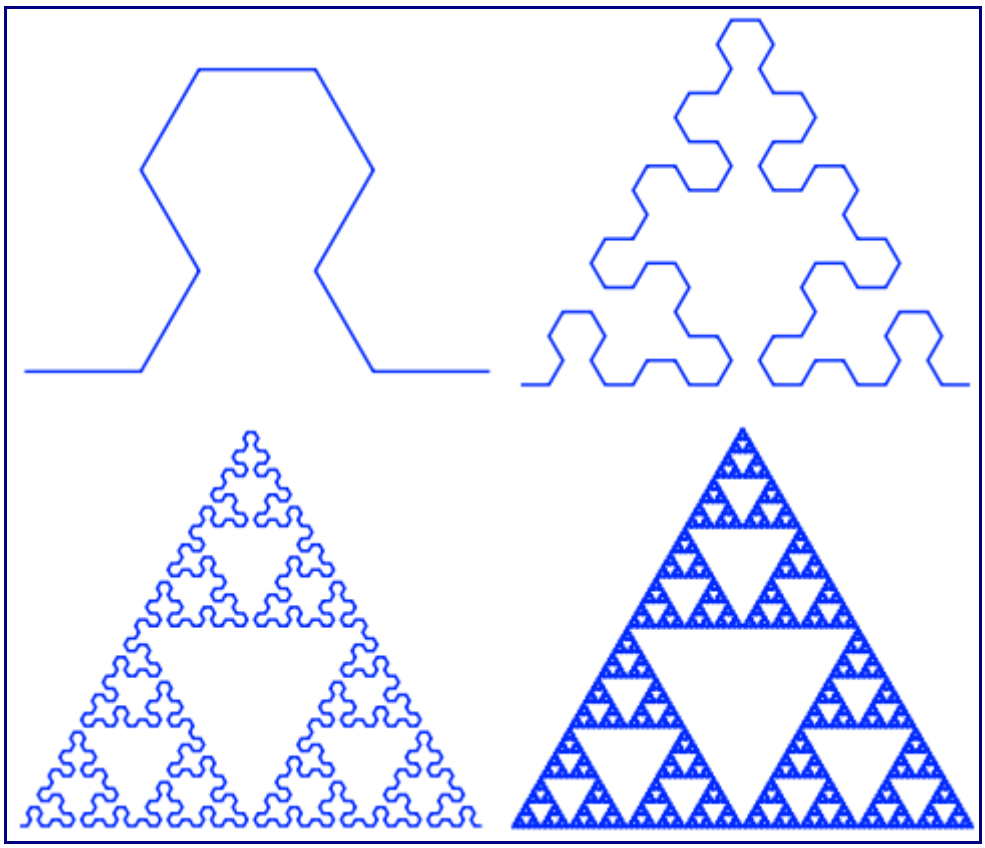
$a_r \to a_l b_r$
$a_l \to b_l a_r$
$b_r \to a_r$
$b_l \to a_l$

a_r
$a_l b_r$
$b_l a_r a_r$
$a_l a_l b_r a_l b_r$
$b_l a_r b_l a_r a_r b_l a_r a_r$
$a_l a_l b_r a_l a_l b_r a_l b_r a_r a_l b_r a_l b_r$

Sierpinski triangle

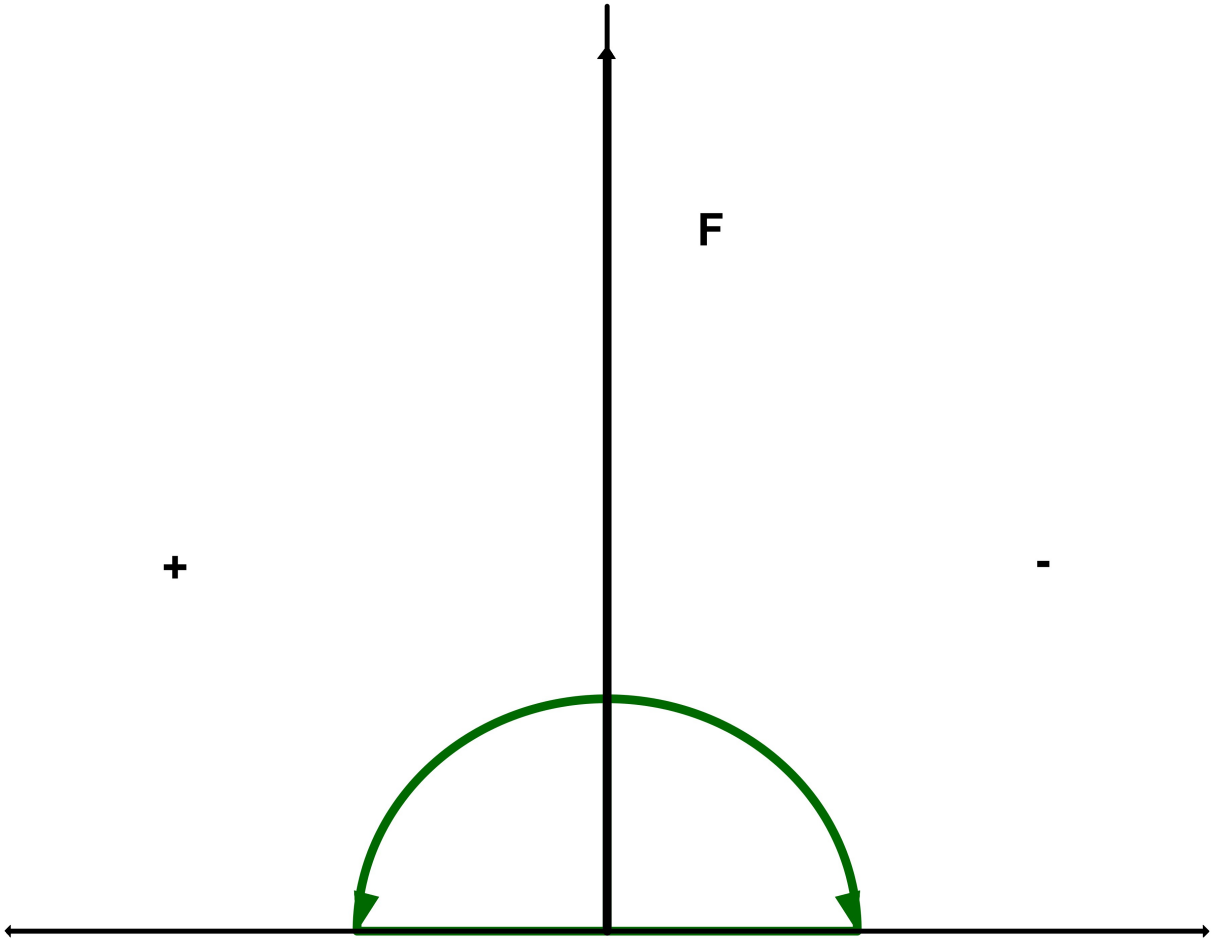
Axiom $w = F_r$, Winkel $\delta = 60°$

Produktionen: $F_l \rightarrow F_r + F_l + F_r$
$F_r \rightarrow F_l - F_r - F_l$



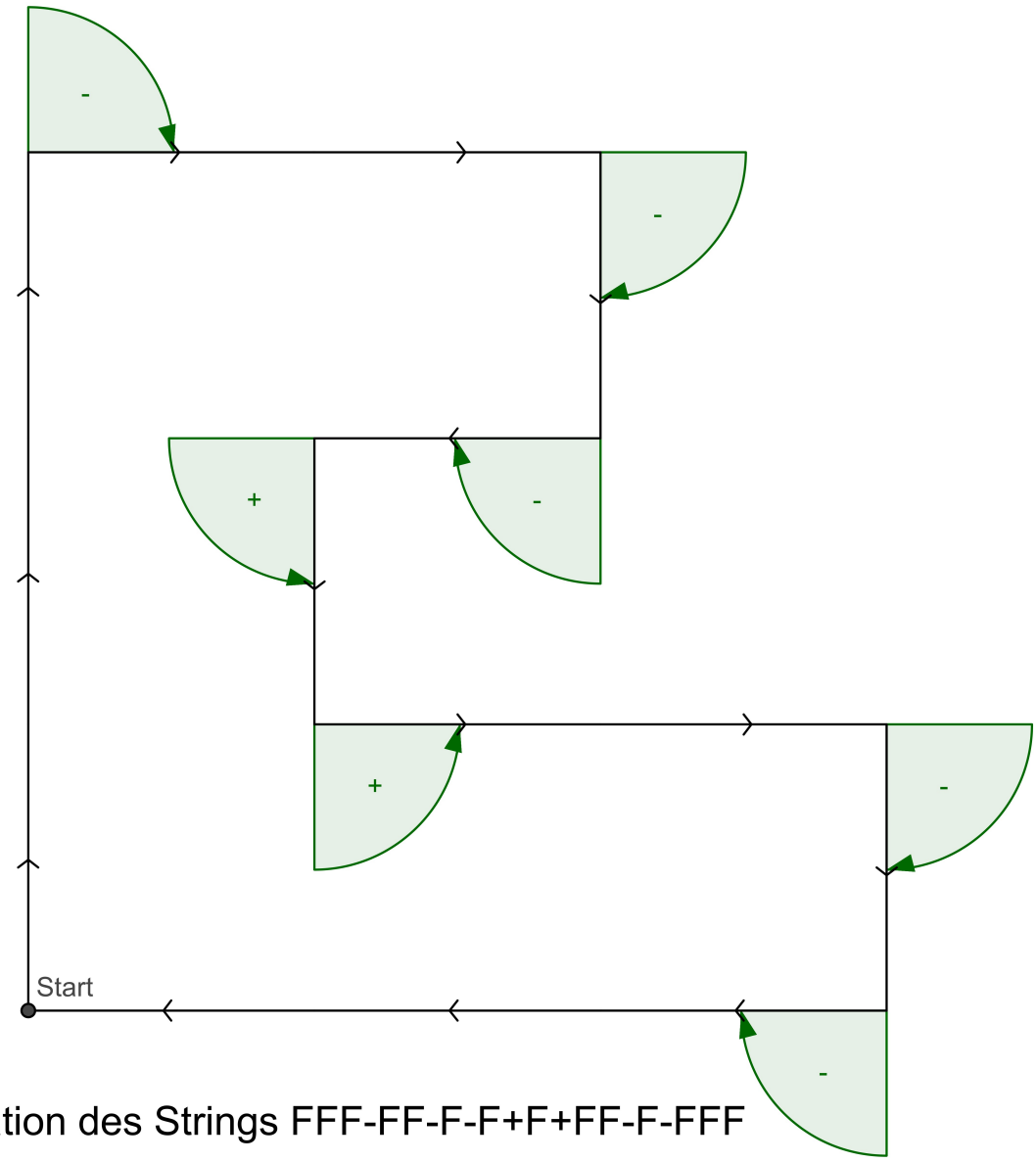
$n = 2$, $n = 4$, $n = 6$, $n = 8$

SCHILDKRÖTE- INTERPRETATION



Interpretation der Symbole F, + und -

TURTEL INTERPRETATION

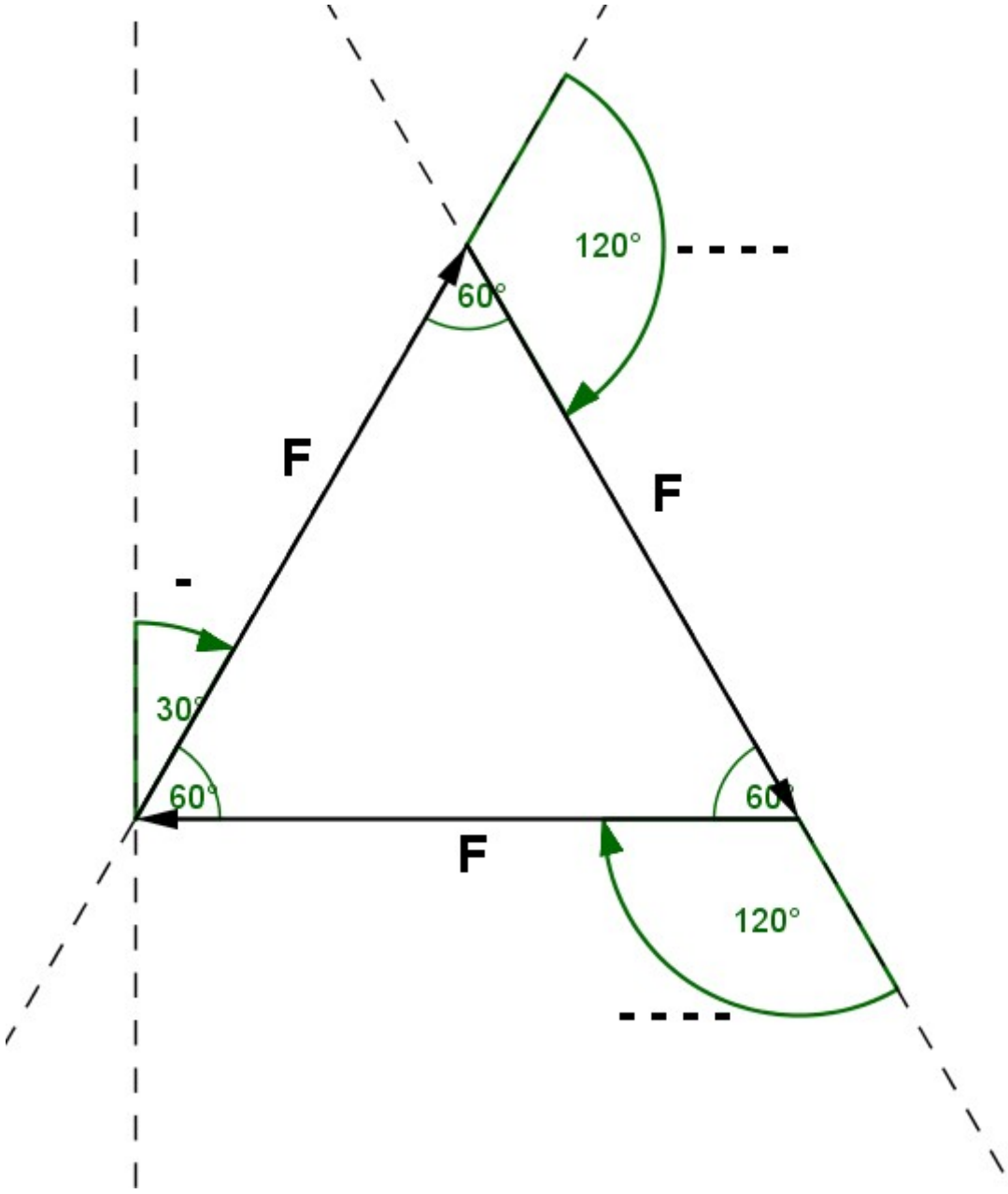


Interpretation des Strings FFF-FF-F-F+F+FF-F-FFF

δ= 90°

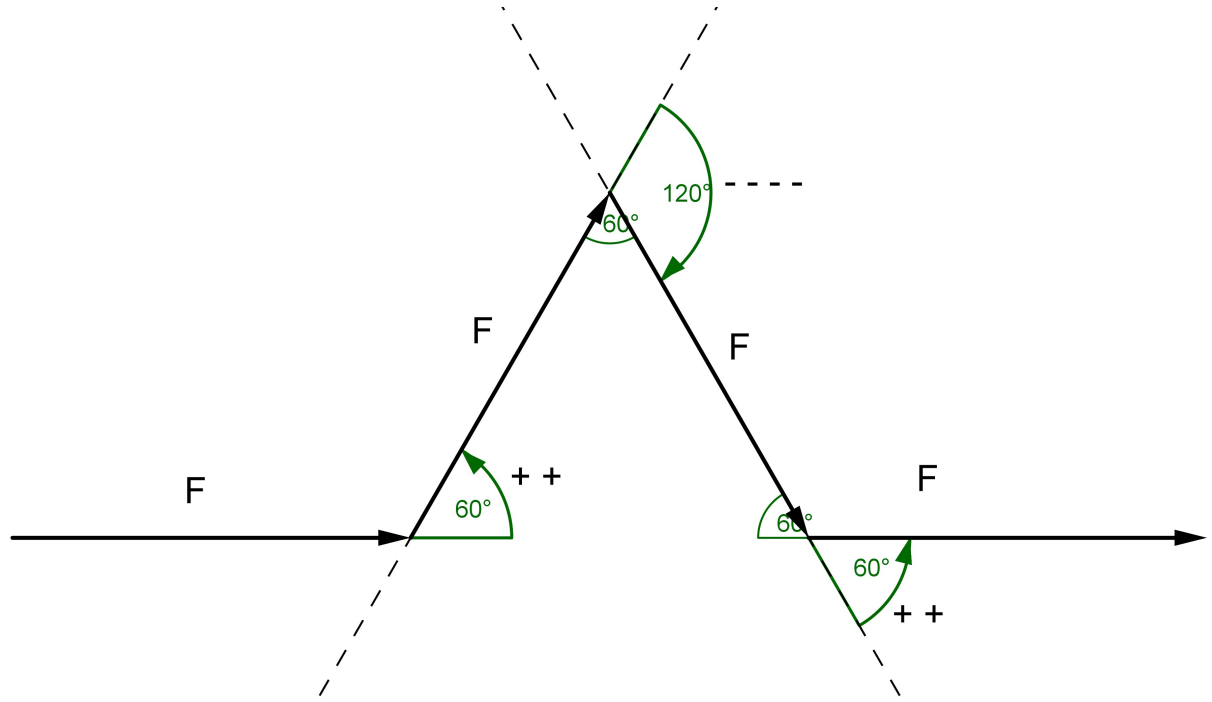
KOCH-KURVE

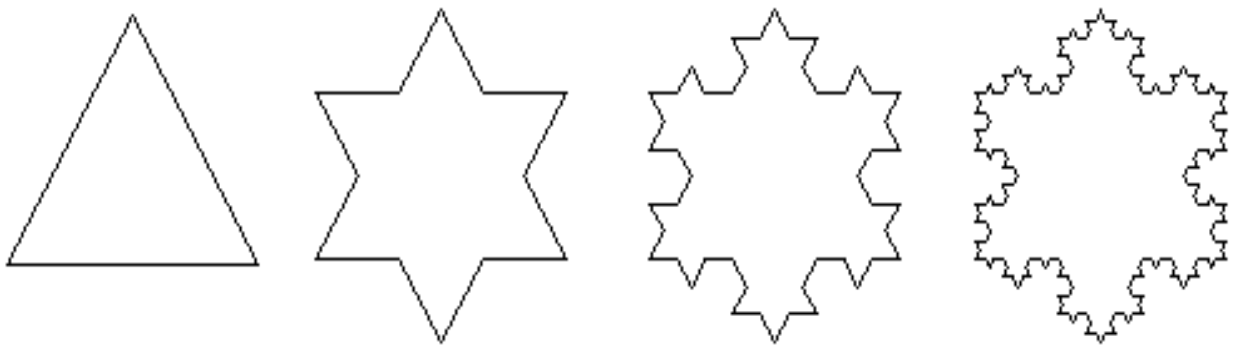
INITIATOR



KOCH-KURVE

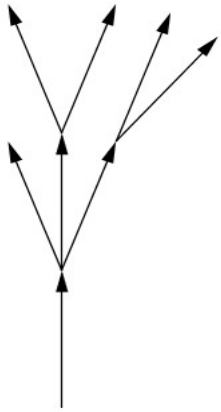
GENERATOR

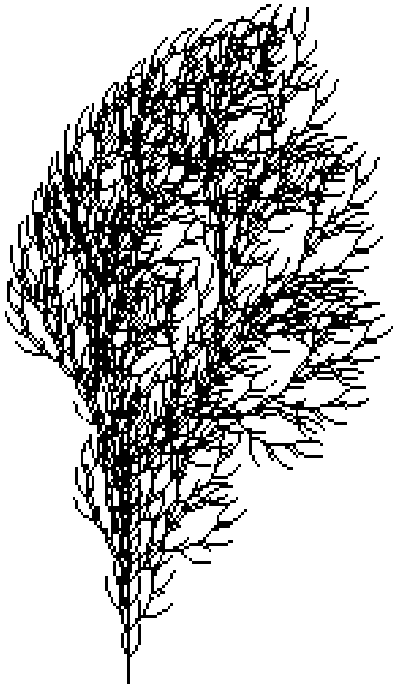


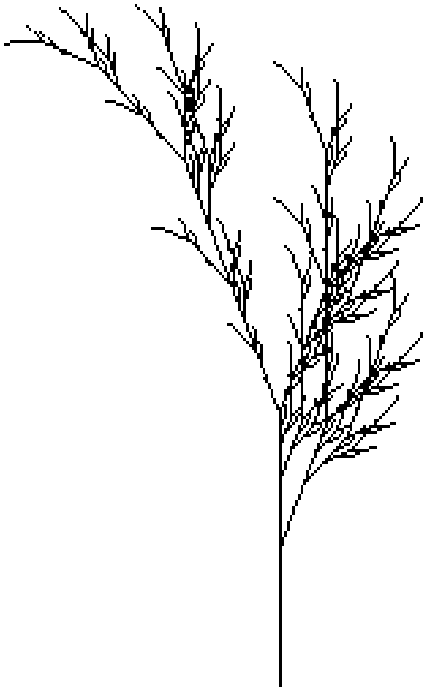


Geklammerte L-Systeme

Interpretation des Strings: F[+F][-F[-F]F[+F][-F]







A **B** **C**

System	Axiom w	Winkel δ	Produktionen	Anzahl der Schritte
A	F	25,7	$F \to F[-F]F[+F]F$	5
B	F	22,5	$F \to FF+[+F-F-F]-[-F+F+F]$	4
C	X	22,5	$X \to F+[[X]+X]+F[FX]-X$ $F \to FF$	5

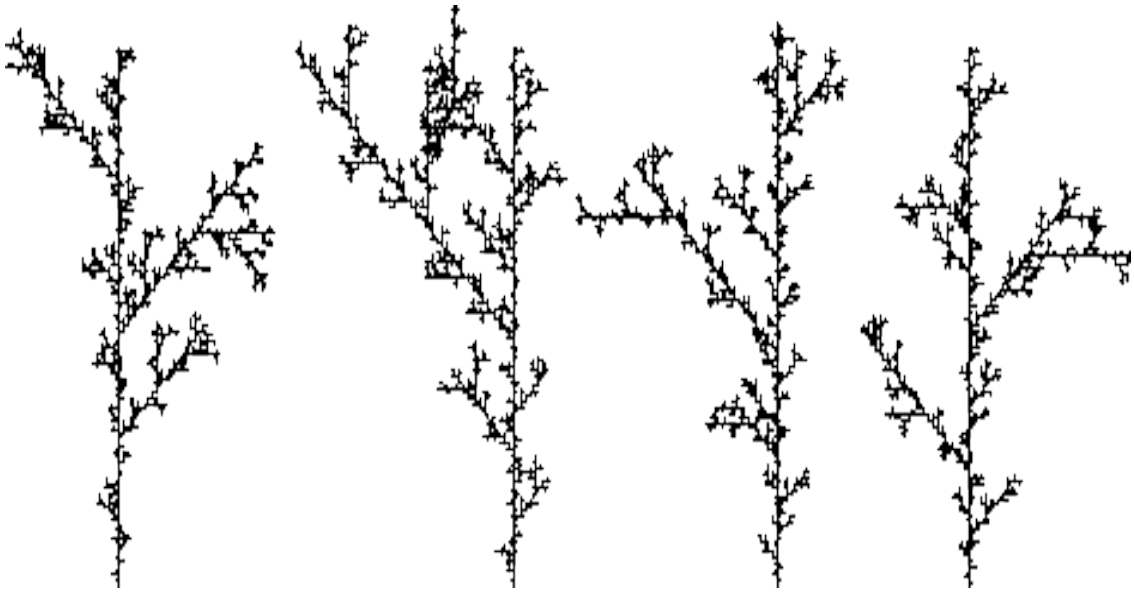
STOCHSTISCHE L-SYSTEME

ω = F

p_1 = F $\rightarrow^{.33}$ F[+F]F[-F]F

p_2 = F $\rightarrow^{.33}$ F[+F]F

p_3 = F $\rightarrow^{.34}$ F[-F]F



Stochastische Wachstumsstrukturen desselben L-Systems