

Καμπύλες που γεμίζουν το χώρο

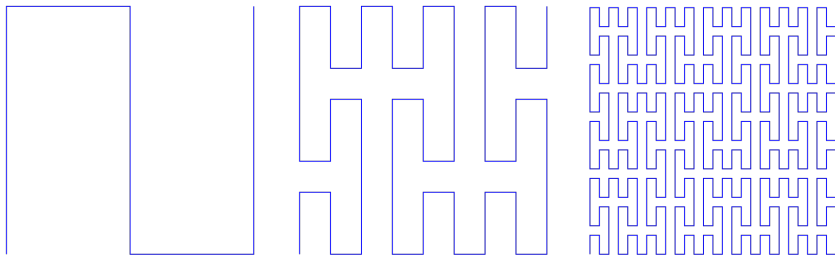
Ινώ Λουκίδου
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4 Ιουλίου 2026

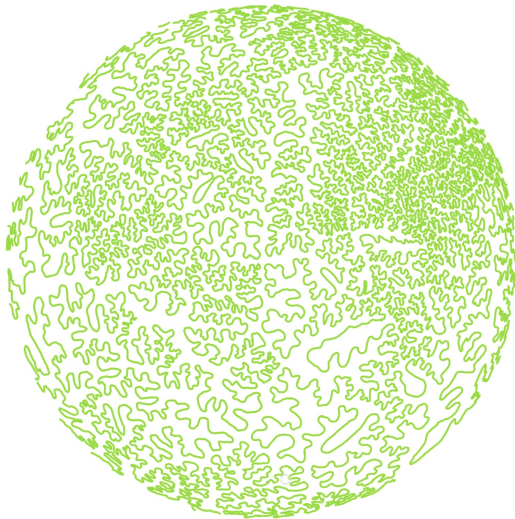
Ένα παράδειγμα



Κι άλλο παράδειγμα (Peano, 1890)



Ένα ακόμα παράδειγμα



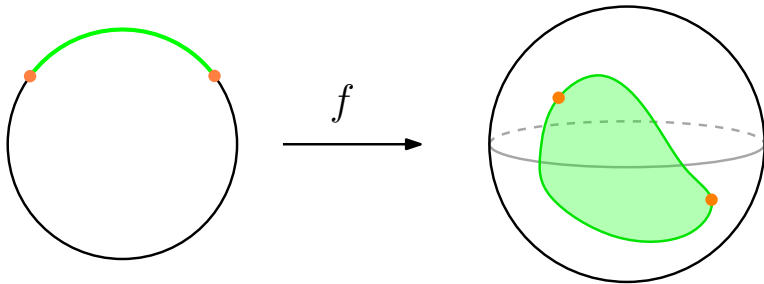
Ορισμοί

CaTherine wheels

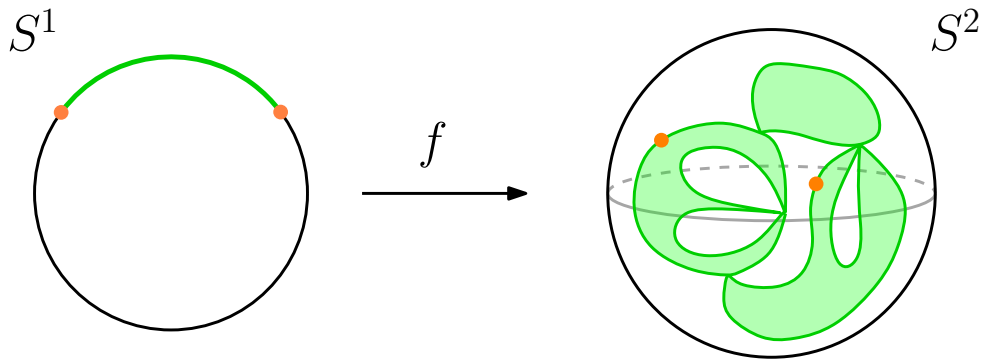
Ορισμός (Calegari - Λ.)

Ένα CaTherine wheel είναι μια συνεχής **επί** απεικόνιση $f : S^1 \rightarrow S^2$ ώστε για κάθε διάστημα $I \subseteq S^1$:

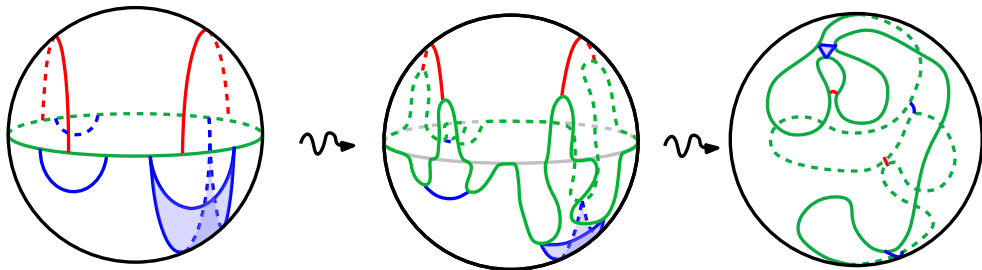
- $f(I) \simeq D^2$
- $f(\partial I) \subseteq \partial f(I)$



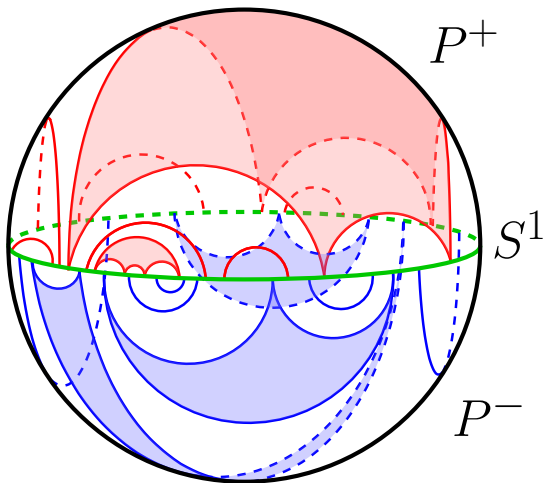
Γενικότερα (P-CaTherine wheels)



Πώς τις κατασκευάζουμε;

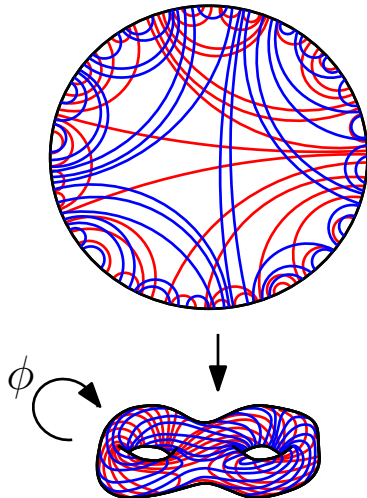
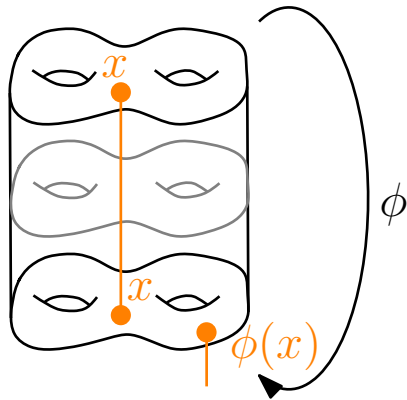


Πώς τις κατασκευάζουμε;

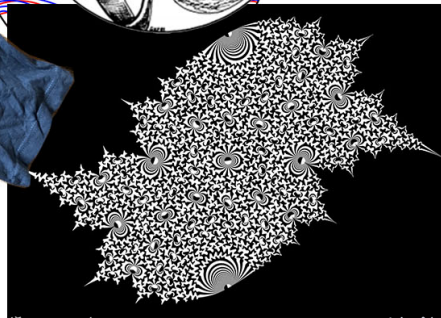
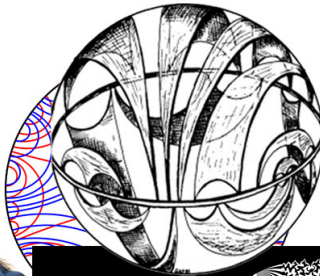


Παραδείγματα

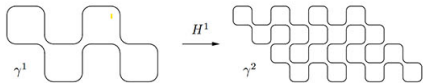
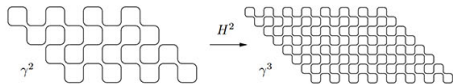
Υπερβολική γεωμετρία - Cannon-Thurston, 80's



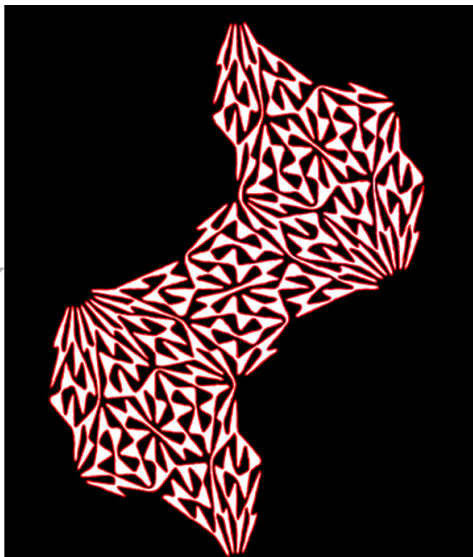
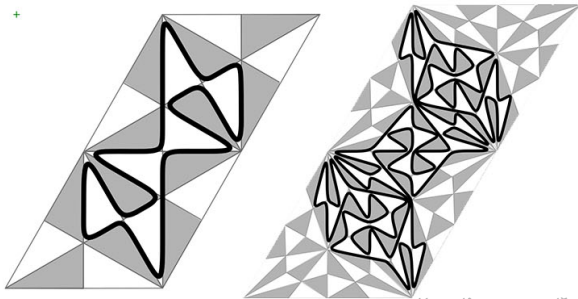
Υπερβολική γεωμετρία - Cannon-Thurston



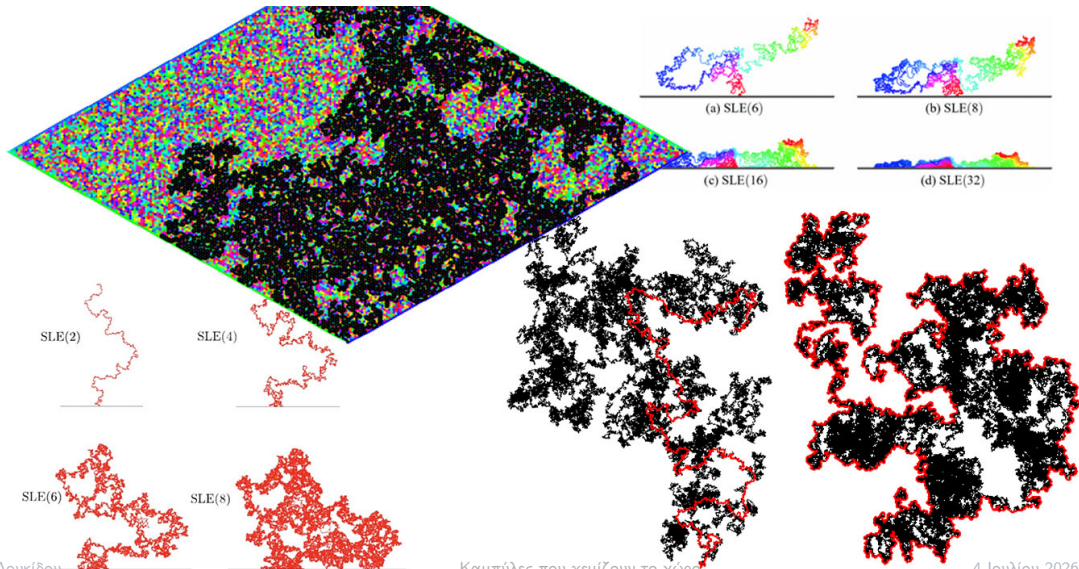
Μιγαδικές ρητές συναρτήσεις



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Πιθανότητες: καμπύλες SLE_κ , $\kappa \geq 8$



Ευχαριστώ!