

$$X = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$



$$A = \frac{\sqrt{3}}{4} a^2$$

**05.05 | 18:00**

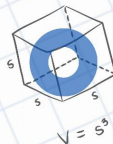
**Cappella Barocca dell'Istituto**

*In italiano con traduzione simultanea in ceco*

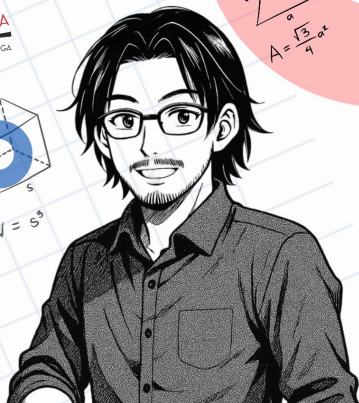
# MATEMATICA + PAROLE

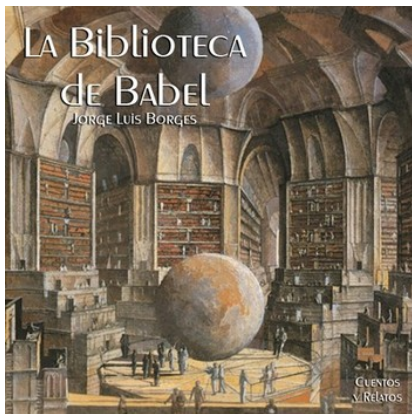
*Chiacchierando di combinatoria e formule,  
senza dare troppo i numeri*

Incontro con  
**Francesco Dolce**



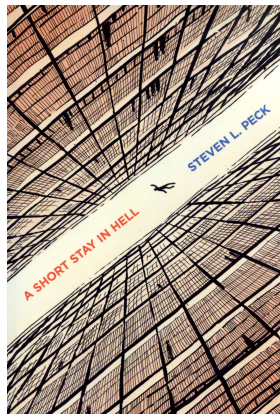
la **BOTTE DI  
DIODIGENE**





## La biblioteca di Babele

*Bábelská knihovna*  
(J.L. Borges)

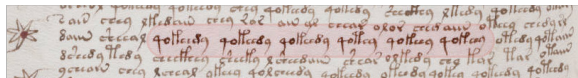
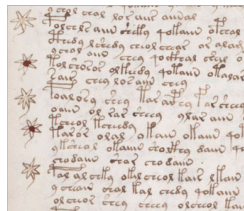


## Un breve soggiorno all'inferno

*Krátký pobyt v pekle*  
(S.L. Peck)

# Manoscritto Voynich

## Voynichův rukopis

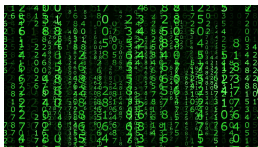


# Parole, parole, parole

*Slovo dělá matematika*



ACGATACGGACATTACATATACG

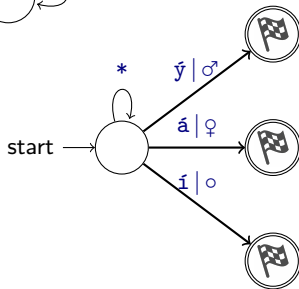
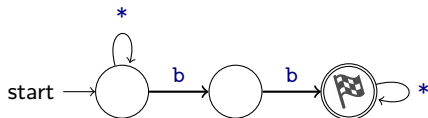
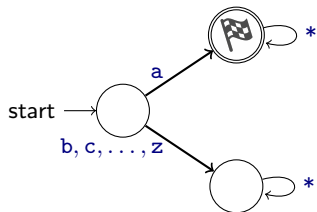


000, 001, 010, 011, 010,  
011, 100, 101, 110, 111



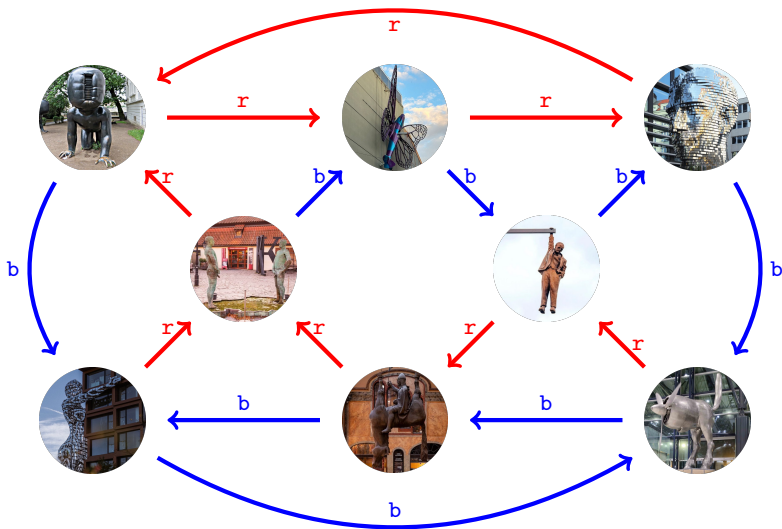
# Costruire parole : automi

Sestavit slova : automaty



# Congettura di Černý

## Černého domněnka



# *Trasformata di Burrows-Wheeler*

*Burrowsova–Wheelerova transformace*



b a n a n a





# Trasformata di Burrows-Wheeler

*Burrowsova–Wheelerova transformace*

```
b a n a n a
  a n a n a b
    n a n a b a
      a n a b a n
        n a b a n a
          a b a n a n
```





# Trasformata di Burrows-Wheeler

*Burrowsova–Wheelerova transformace*

|   |   |   |   |   |   |
|---|---|---|---|---|---|
| a | b | a | n | a | n |
| a | n | a | b | a | n |
| a | n | a | n | a | b |
| b | a | n | a | n | a |
| n | a | b | a | n | a |
| n | a | n | a | b | a |





# Trasformata di Burrows-Wheeler

*Burrowsova–Wheelerova transformace*

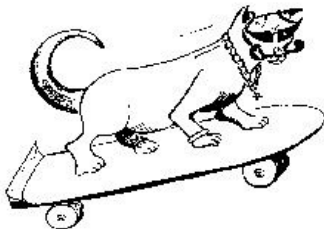
|   |   |   |   |   |   |
|---|---|---|---|---|---|
| a | b | a | n | a | n |
| a | n | a | b | a | n |
| a | n | a | n | a | b |
| b | a | n | a | n | a |
| n | a | b | a | n | a |
| n | a | n | a | b | a |



$\text{bwt}(\text{banana}) = \text{nnbaaa}$

# *Palindromi*

## *Palindromy*



GOFLOWOLFOG

# Palindromi

## Palindromy

otto, Anna, kayak, Ai lati d'Italia, I topi non avevano nipoti, Aceto nell'enoteca





# Palindromi

## Palindromy



otto, Anna, kayak, Ai lati d'Italia, I topi non avevano nipoti, Aceto nell'enoteca



oko, blb, nepochopen, Jelenovi pivo nelej, Ital platí



# Palindromi

## Palindromy



otto, Anna, kayak, Ai lati d'Italia, I topi non avevano nipoti, Aceto nell'enoteca



oko, blb, nepochopen, Jelenovi pivo nelej, Ital platí

135797531,

SIGNATE SIGNATE MERE ME TANGIS ET ANGIS,

ROMA TIBI SUBITO MOTIBUS IBIT AMOR.



# *Contando palindromi*

## *Počítání palindromů*

pizza

→

p, i, z, a  
zz



# Contando palindromi

## Počítání palindromů

pizza

→

p, i, z, a  
zz

5 = 5 ✓



# Contando palindromi

## Počítání palindromů

pizza

→

p, i, z, a  
zz

5 = 5 ✓



ananas

→

a, n, s,  
ana,  
anana

6 = 6 ✓



# Contando palindromi

## Počítání palindromů

pizza

→

p, i, z, a  
zz

$5 = 5$  ✓



ananas

→

a, n, s,  
ana,  
anana

$6 = 6$  ✓



pizzahawaiana

→

p, i, z, a, h, w, n,  
zz,  
aha, awa, aia, ana

$12 < 13$  ✗

