This book guides you step by step through original mathematical and computer activities adapted to high school. It is complemented by online resources: all the *Python* codes and colourful chapters. You have everything you need to succeed!

- Hello world!
- Turtle (Scratch with Python)
- If ... then ...
- Functions
- Arithmetic While loop I
- Strings Analysis of a text
- Lists I
- · Statistics Data visualization
- Files
- · Arithmetic While loop
- Binary I
- Lists II
- Binary II

- Probabilities Parrondo's paradox
- Find and replace
- · Polish calculator Stacks
- · Text viewer Markdown
- L-systems
- Dynamic images
- Game of life
- · Ramsey graphs and combinatorics
- Bitcoin
- · Random blocks



## **Arnaud Bodin**



**Algorithms and mathematics** 

