

Root findings : equations $f(x) = 0$

- Polynomial equations : ~~Bairstow's method~~ is an efficient algorithm for finding the roots of a real polynomial of arbitrary degree
 - [Polynomials in NumPy](#)
 - [polynomial module](#), including `polyroots(c)` to compute the roots of a polynomial.
- ~~Bisection method~~ (dichotomy) : very simple and robust method, but relatively slow. It assumes continuity of the function, and obtain one root. The algorithm is based on a ~~loop invariant~~ property : an interval $[a, b]$ is said to bracket a root if $f(a)$ and $f(b)$ have opposite signs.
- ~~Secant method~~ (retains the last two computed points)
- ~~Regula falsi~~ (retains the points which preserve bracketing)
- ~~Newton-Raphson method~~

From:

<https://dvillers.umons.ac.be/wiki/> - Didier Villers, UMONS - wiki

Permanent link:

https://dvillers.umons.ac.be/wiki/teaching:methcalchim:root-finding_algorithm?rev=1539934671

Last update: 2018/10/19 09:37

