

Implementation

Time complexity assessment

- Algorithm CP [$O(E)$]
Linear: $\text{time} = 0.00033 + 1.2E-05 * n$
- Algorithm WD [$O(V^3)$]
Cubic: $\text{time} = 0.039 + 3.8E-07 * n^3$
- Algorithm OPT1 [$O(V^3 \lg V)$]
Cubic: $\text{time} = 0.066 + 4.7E-07 * n^3$
- Algorithm FEAS [$O(VE)$]
NODES: Quadratic: $\text{time} = 0.014 + 2.8E-05 * n^2$
EDGES: Quadratic: $\text{time} = 0.0051 + 1.5E-05 * n^2$
- Algorithm OPT2 [$O(VE \lg V)$]
Polynomial: $\text{time} = -9.3 * x^{2.2}$

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Testing

- Each algorithm has been unit tested using both the provided correlators and some randomly generated graphs.
- All the core functions and classes of the project have been unit tested with 100% coverage.