

The Caltech Graph has $n = 2000$ nodes and $m = 124130$ edges.
It was generated using the following selection policy:

Rules:

- Only visit pages within the Caltech domain.
- Visit each page only once.
- Ignore pages that are not HTML (ignoring multimedia/data files as well).
- Ignore the parameters in dynamic URLs to visit each dynamic page only once.
- Removes nodes that fail to be crawled due to interruptions/errors.
- Use breadth-first search algorithm to prioritize between urls.

Pros:

- Finds pages closer to the starting URL.
- Keeps diameter of the graph small via BFS.
- Saves time by visiting each page only once.

Cons:

- Potentially skips unique content of dynamic web pages.
- Misses any links within multimedia/data files.
- Misses any links that are not in the HTML source code.
- Misses any new or changed links that are added after each page is visited.

Clustering and Diameter analysis (treating the graph as undirected)

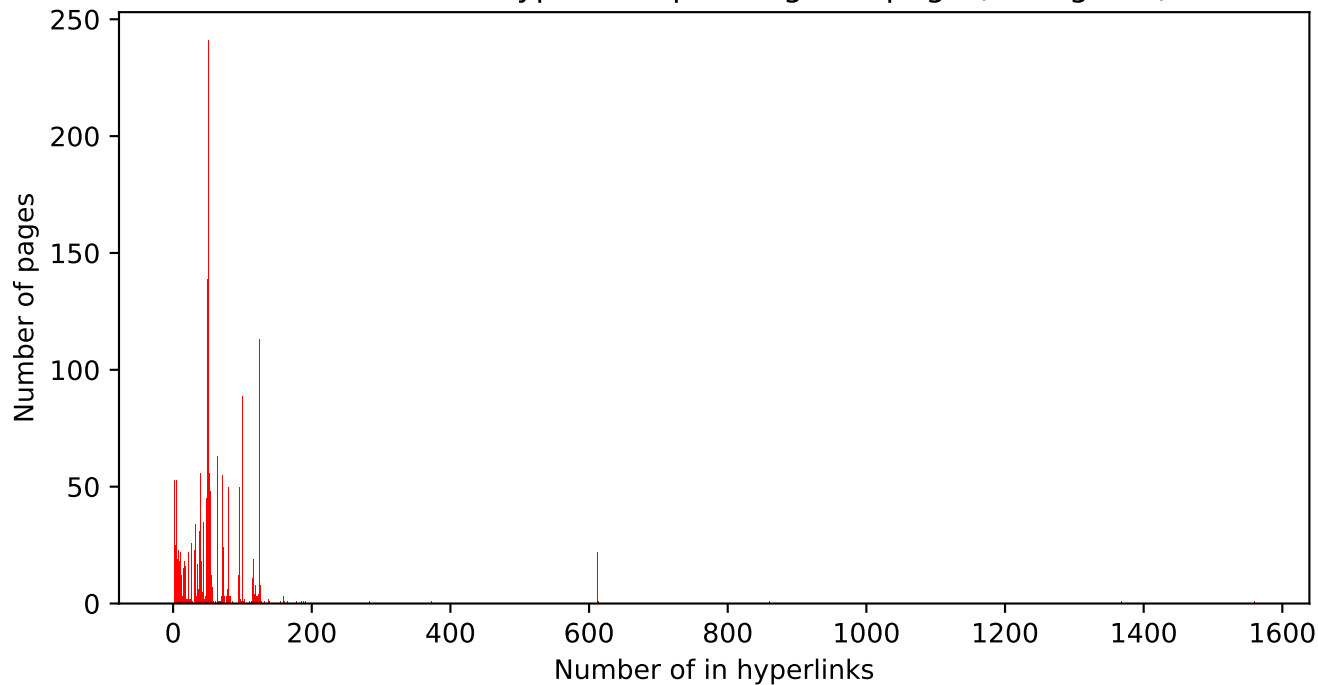
Global clustering coefficient: 0.4857047474903301

Average clustering coefficient: 0.898791351073389

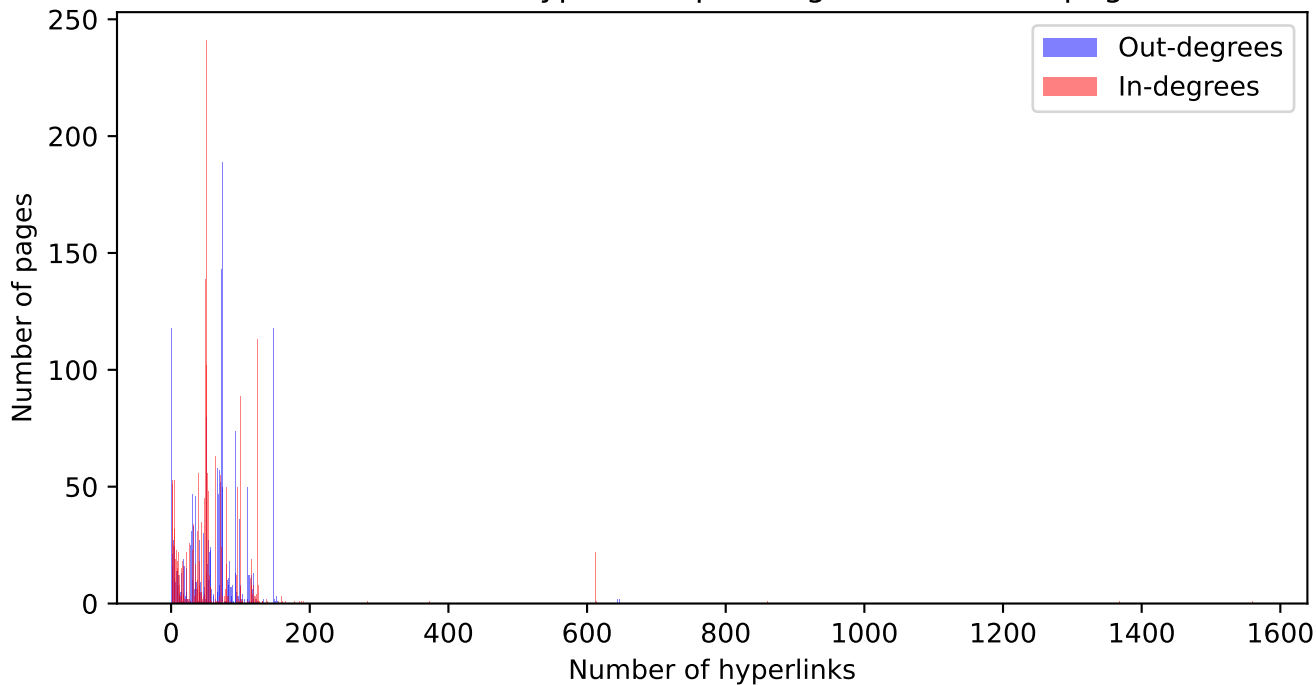
Maximum diameter: 4

Average diameter: 2.257902451225613

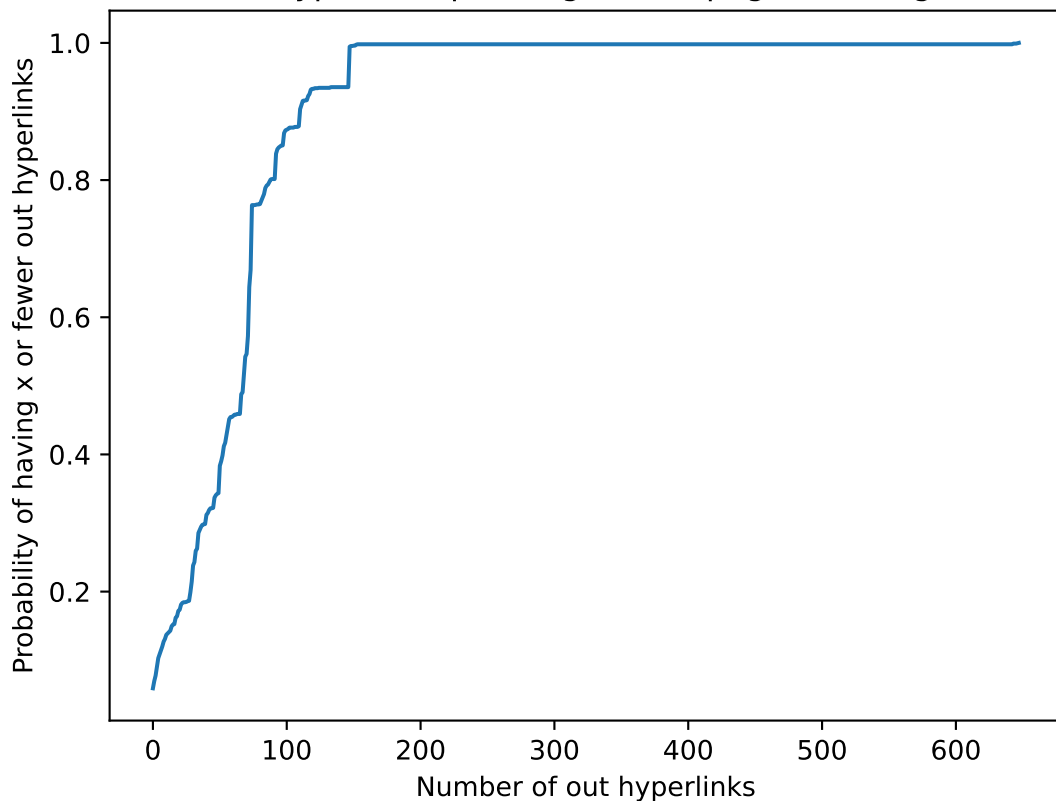
Distribution of hyperlinks pointing to a page (in-degrees)



Distribution of hyperlinks pointing to and from a page



CDF of hyperlinks pointing from a page (out-degrees)



CDF of hyperlinks pointing to a page (in-degrees)

