<https://medium.com/better-programming/the-ultimate-guide-for-the-icpc-407b7f6409dd>

<https://www.geeksforgeeks.org/geometric-algorithms/>

Independent Set:

Maximum independent set + Minimum vertex cover = n

|max bipartite matching| = |A| + |B| − |max independent set|

<https://ali-ibrahim137.github.io/competitive/programming/2020/01/02/maximum-independent-set-in-bipartite-graphs.html>

**Grafos**

repasar

Topological sort

SCC

| MaxMatching | = |maxVertexCover|

|MaxVertexCover| + |maxIndpSet| = n

Aprender

Floyd

Floyd Warshall

Bellman Ford

**Strings**

**Programar trie/prefix tree**

Knuth Morris Pratt(KMP)

Z algorithm,

Suffix arrays/Suffix trees

Rolling Hashes

<https://codeforces.com/blog/entry/60442>

<https://codeforces.com/blog/entry/74961>

<https://codeforces.com/blog/entry/74235>

<https://codeforces.com/blog/entry/60445>

**Geometry**

Graham-Scan for convex hull

Geometric sweeps algorithms live

* <http://algorithms-live.blogspot.com/search?updated-max=2017-03-10T13:31:00-08:00&max-results=7&start=21&by-date=false>
* <https://community.topcoder.com/stat?c=problem_statement&pm=13418>

**Teoría de números**

<https://codeforces.com/blog/entry/54090>

<https://codeforces.com/blog/entry/53925>

Chinese remainder theorem(CRT)

Euler’s totient function

**Progra general**

Meet in the middle?

Greedy: Activity selection.

SQRT descomposition

Juegos

Basic principles of Nim game

Grundy numbers

Sprague-Grundy

Problemas:

DFS

[231E - Cactus](https://codeforces.com/contest/231/problem/E)

[19E - Fairy](https://codeforces.com/contest/19/problem/E)

* [858F - Wizard's Tour](https://codeforces.com/contest/858/problem/F)
* [412D - Giving Awards](https://codeforces.com/contest/412/problem/D)
* [101612G - Grand Test](https://codeforces.com/gym/101612/problem/G)

Segment Tree:

<https://codeforces.com/blog/entry/22616>

<https://codeforces.com/blog/entry/18051>

<https://codeforces.com/blog/entry/15890>

**DP**

**Divide and conquer trick**

[**https://cp-algorithms.com/dynamic\_programming/divide-and-conquer-dp.html**](https://cp-algorithms.com/dynamic_programming/divide-and-conquer-dp.html)

**https://ivaniscoding.github.io/posts/dctrick1/**

**https://jeffreyxiao.me/blog/divide-and-conquer-optimization**

**Convex Hull Trick**

[**https://www.youtube.com/watch?v=oaYsWnohXpA**](https://www.youtube.com/watch?v=oaYsWnohXpA)

**https://www.youtube.com/watch?v=OrH2ah4ylv4**

[**https://codeforces.com/blog/entry/63823**](https://codeforces.com/blog/entry/63823)

**https://codeforces.com/blog/entry/8219**

<https://www.quora.com/How-does-one-become-better-at-dynamic-programming-problems-for-competitive-programming>

<https://www.topcoder.com/community/competitive-programming/tutorials/dynamic-programming-from-novice-to-advanced/>

<https://codeforces.com/blog/entry/43256>

**SCC**

<https://codeforces.com/problemset/problem/427/C>

<https://codeforces.com/problemset/problem/505/D>

<https://community.topcoder.com/stat?c=problem_statement&pm=14334>

BRIDGES:

[http://codeforces.com/gym/100114](https://codeforces.com/gym/100114) J (computer network)

[http://codeforces.com/problemset/problem/732/F](https://codeforces.com/problemset/problem/732/F)

<http://codeforces.com/contest/700/problem/C>

<https://codeforces.com/problemset/problem/732/F>

<https://codeforces.com/contest/700/problem/C>

UVA 12363 — Hedge Mazes

UVA 796 — Critical Links

UVA 12783 — Weak Links

SCC:

UVA 11324 — The Largest Clique

UVA 12926 — Trouble in Terrorist Town

UVA 11838 — Come and Go

UVA 11709 — Trust groups

UVA 12645 — Water Supply

UVA 13057 — Prove Them All

UVA 12745 — Wishmaster

UVA 247 — Calling Circles

UVA 11770 — Lighting Away

Fenwick tree:

Checar problemas resueltos kattis

Creo que es de Algorithms live

Maximum Flow

* [Codeforces - Array and Operations](https://codeforces.com/contest/498/problem/c)
* [Codeforces - Red-Blue Graph](https://codeforces.com/contest/1288/problem/f)