An asterisk* denotes that the publication is available online at the ArXiv at `http://front.math.ucdavis.edu/`, or (likely) on someone's webpage (do a web search in Google, for instance).

Combinatorial Convexity

Proof of colorful Caratheodory: [1].
Text on convexity: [2].
Matousek's excellent book at the graduate level has a section on this: [3].

Helly's theorem

A nice section on Helly's theorem and applications: [4].
A new paper on a fractional Helly: [5].

Polytopes

A nice introduction is this chapter: [6]* in the book [7] which is a great overall introduction.
Ziegler's excellent book at the graduate level: [8].
Grübaum's classic text: [9].
Coxeter's classic text on regular polytopes: [10].
Kalai's proof that simple polytopes determined by their graph: [11]*.
Interesting history, nice pictures: [12].
McMullen's upper bound theorem: [13].

Triangulations

My paper on triangulations of cubes: [14]*
Upper bounds for triangulations of a planar point set: [15]*.
The space of triangulations is disconnected: [16]*.
The polytope of pointed pseudo-triangulations: [17]*.
Chamber complexes of polytopes: [18].
Riemmann hypothesis for triangulable manifolds: [19].

Combinatorial Fixed Point Theorems and Sperner's Lemma

Cake-cutting and rent-division applications: [20]*.
A polytopal generalization: [21]*.
Another analogue: [22].
Computation and applications to economics: [23].
A different generalization of Sperner's lemma: [24].

[0] *The MAA's Professional Enhancement Program (PREP) is funded by the NSF (grant DUE-0341481).

Tucker's lemma

The first constructive proof: [25]
Another constructive proof: [26]*.
Cake-cutting applications: [27]*.
Borsuk-Ulam implies Brouwer: [28]*.
Other papers on combinatorial fixed point theorems available at my webpage: `http://www.math.hmc.edu/ su/papers.html`

Kneser colorings

Joshua Greene's proof of the Kneser conjecture: [29].
Lovasz's famous proof of the Kneser conjecture: [30].
A survey by Björner: [31]*.
A paper by Ziegler on generalized Kneser colorings: [32]*.

Trees

A combinatorial fixed point theorems for trees: my paper will be available at `http://www.math.hmc.edu/~su/papers.html` later this summer.
The tree metric theorem: [33].
A biologist's book on phylogenies: [34].
Geometry of the space of phylogenetic trees: [35]*.

Tropical Geometry

A nice introduction is a chapter in [36].
Also: [37]*.
Tropical convexity: [38]*.
Rank of a tropical matrix: [39]*.
Tropical halfspaces: [40]*.
See other papers on the ArXiv at `http://front.math.ucdavis.edu/`.

Lattice point counting and Ehrhart polynomials

Ehrhart's paper: [41].
Coefficients and roots of Ehrhart Polynomials: [42]*.
An application of counting lattice points: [43]*.
A new book by Beck and Robins: see the webpage of Matthias Beck later this summer: `http://math.sfsu.edu/beck/papers.html`.

Unsolved problems

Book with lots of unsolved problems: [44].

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