# Links on Geometry (and Mathematics in general)

This is my old link list for Geometry. It is no longer systematically updated, as I am not doing geometry anymore. Nowadays you can find me on the <u>MathLinks (Art of Problem Solving)</u> forum (mostly in the <u>Olympiad Section</u> and the <u>College Playground</u>), on <u>MathOverflow</u>, and occasionally on the <u>Matheplanet</u> (German).

# English pages

- http://www.mathlinks.ro/ | http://artofproblemsolving.com/ (both links lead to the same forum in different skins)
   Mathlinks | Art of Problem Solving: Very active forum on problem-solving, including various geometry topics, discussions of mathematical olympiad problems and certain research topics. Some of the members are IMO participants. Among other things, a downloadable collection of IMO Shortlist and Longlist problems can be found on this forum.
- http://groups.yahoo.com/group/Hyacinthos/
   Hyacinthos: The famous Yahoo newsgroup on triangle geometry. It was created in December 1999 and named in honor of the geometer Emile Michel Hyacinthe Lemoine; its archive contains lots of discussions about geometric problems.
- http://faculty.evansville.edu/ck6/
   Clark Kimberling: The homepage of Clark Kimberling, with descriptions of triangle centers and historical notes about mathematicians.
- http://faculty.evansville.edu/ck6/encyclopedia/
   Encyclopedia of Triangle Centers: Clark Kimberling's online
   Encyclopedia, containing over 1400 triangle centers, with trilinear and barycentric coordinates and interrelations.
- http://journals.cms.math.ca/CRUX/
   Crux Mathematicorum: A journal for problem solving in Elementary
   Mathematics, where many geometry and triangle geometry problems
   were printed. The journal archive is mostly online, and most of it is now

open to public access!

- http://www-math.mit.edu/~kedlaya/geometryunbound/
   Geometry Unbound by Kiran Kedlaya: A freely downloadable geometry script. Graphics have not been inserted yet, but the contents is already at a quite progressed state. See also <u>Kiran Kedlaya's website</u>.
- http://reflections.awesomemath.org/
   Mathematical Reflections: Journal on olympiad-level mathematics issued by the <a href="mailto:AwesomeMath initiative">AwesomeMath initiative</a>.
- http://cut-the-knot.com/geometry.shtml
   Cut the Knot: Website of Alexander Bogomolny, containing lots of topics on Geometry and Mathematics in general. (This link is to the Geometry site; the index is <a href="http://cut-the-knot.com/">http://cut-the-knot.com/</a>.)
- http://home.wxs.nl/~lamoen/wiskunde/wiskunde.htm
   Floor van Lamoen (partly Dutch): The website of a geometer, Floor van Lamoen. Some notes on Triangle Geometry.
- http://paideiaschool.org/TeacherPages/Steve Sigur/interesting2.htm
   Steve Sigur: A number of mathematical notes, particularly about triangle geometry. Some research by John Conway can be found here as well.
- http://forumgeom.fau.edu/
   Forum Geometricorum: A completely online (and free) journal for Geometry, founded in 2001.
- http://www.math.fau.edu/yiu/Geometry.html
   Paul Yiu: Papers on Triangle Geometry and Geometry in general, including comprehensive lecture notes.

world. The site contains a lot of interesting materials.

- <a href="http://www.imomath.com/">http://www.imomath.com/</a>
   The IMO Compendium: A project to collect the problems of past IMO Shortlists and various other mathematical olympiads from all over the
- http://www.unl.edu/amc/a-activities/a4-for-students/s-index.shtml
   AMC's Student Corner: Resources helpful for students preparing to mathematical olympiads. Among them, the 1996-97 and 1997-98 issues

of "Olympiad problems from around the world"; needless to say, these contain some geometry problems too.

- http://mathdb.org/mainpage/e main.htm
   Mathematical database: Chinese ressource, containing notes on olympiad mathematics (particularly, geometry) and an online community.
- http://www.maths.gla.ac.uk/~wws/cabripages/cabri0.html
   Wilson Stothers: Euclidean and Non-Euclidean Geometry, and some Triangle Geometry, for instance a note on the Lester circle.
- <a href="http://mathforum.org/">http://mathforum.org/</a>

The Math Forum: This forum includes several newsgroups, among them the ones where Triangle Geometry was discussed before "Hyacinthos" was founded, namely the newsgroups geometry-college, geometry-puzzles and geometry-research.

http://www.problemcorner.org/

**MathPro database**: A database containing many mathematical problems from acquainted journals, with a possibility to add comments in text and HTML.

- http://g.boutte.free.fr/articles.htm
   Gilles Boutte (partly French): Some articles on Triangle Geometry.
- http://woobiola.net/math/
   Peter Woo: Geometry notes, problems and p

**Peter Woo**: Geometry notes, problems and problem solutions. A subordinate site for papers and problems in "Crux Mathematicorum" is <a href="http://woobiola.net/math/crux.htm">http://woobiola.net/math/crux.htm</a>.

- http://www.partnership.mmu.ac.uk/cme/Geometry/TriangleGeometry/Ti
   Dick Tahta: Some topics of Triangle Geometry with short descriptions and dynamic figures. See also
   http://www.partnership.mmu.ac.uk/cme/Geometry/Geometry.html
- http://mathworld.wolfram.com/
   Mathworld: Eric W. Weisstein's Encyclopedia of Mathematics with some topics on Triangle Geometry.
- http://www.xtec.es/~qcastell/ttw/ttweng/indexs/index B.html
   TTW: Quim Castellsaguer's site, descriptions of triangle centers and

other notions of Triangle Geometry.

http://www.math.su.se/~mleites/

**Dimitry Leites**: Contains, besides mathematical works, <u>translations of books by Victor Prasolov</u>, including his "Problems on Plane Geometry", a famous Russian geometry problem book containing a chapter on triangle geometry. This translated geometry book can also be downloaded from <a href="http://michaj.home.staszic.waw.pl/prasolov.html">http://michaj.home.staszic.waw.pl/prasolov.html</a>. The Russian original can be found at <a href="http://www.mccme.ru/free-books/">http://www.mccme.ru/free-books/</a>.

http://web.math.hr/~cerin/

**Zvonko** Cerin: Some articles, partly on Triangle Geometry. See particularly <a href="http://web.math.hr/~cerin/radovi.html">http://web.math.hr/~cerin/radovi.html</a>.

- http://www.my-edu2.com/EDU/math2.htm
   163 mathematical links: Links to various websites on Mathematics.
- http://groups.yahoo.com/group/Anopolis/
   Anopolis (Antreas P. Hatzipolakis): Some results of Triangle Geometry.

http://web.archive.org/web/\*/http://www.kalva.demon.co.uk

Maths problems by John Scholes ("Kalva"): A database containing problems of different mathematical olympiads, among them the International Mathematics Olympiad, with solutions. The above link points to the Wayback Machine, because the site itself is down for some time now. The Wayback Machine not only allows you to browse a relatively modern version of the site, but also to see how the site looked some years ago - what is particularly useful as some parts of the site have been removed.

Note that John Scholes plans to relaunch his site on <a href="http://www.kalva.org">http://www.kalva.org</a> !

• http://www.ajorza.org

Andrei Jorza's Mathematical Olympiad Archive: Problems and solutions of various mathematical olympiads. (And some notes on algebra.)

http://www.cpohoata.com/
 Cosmin Pohoata: Some notes on Euclidean/triangle geometry.

- http://www.thejuniverse.org/geometry/LC/index.html
   Lester Circle (June Lester): The Lester Circle described by its discoverer, June Lester.
- <a href="http://www.pballew.net/">http://www.pballew.net/</a>

Pat Ballew: Nice mathematical site with some geometrical java-applets and links

• <a href="http://agutie.homestead.com/">http://agutie.homestead.com/</a>

Antonio Gutierrez: Geometry (and Triangle Geometry) pages with good illustrations.

http://perso.orange.fr/bernard.gibert/

Bernard Gibert's Triangle Cubics site: This site contains an important topic of Triangle Geometry. Gibert studies several cubics related to a triangle.

<a href="http://pages.infinit.net/spqrsncf/">http://pages.infinit.net/spqrsncf/</a> (offline)

Edward Brisse: Some additions to Clark Kimberling's Encyclopedia of Triangle Centers; helpful but raw material for work with triangle centers.

http://clem.mscd.edu/~talmanl/

Lou Talman: Some notes on Geometry.

http://forumgeom.fau.edu/POLYA/

Polya: Discussion group for cooperative problem solving.

http://www.cms.math.ca/Competitions/MOCP/

Mathematical Olympiads Correspondence Program: Numerous problems with solutions provided by a training program for mathematical olympiad participants.

- http://groups.yahoo.com/group/imo-problems/messages imo-problems: Newsgroup discussing difficult mathematical problems, predecessor of <u>MathLinks</u>.
- http://www.madras.fife.sch.uk/maths/enrichment/
   Notes and Lectures for Olympiad Training: A number of introductory papers on various areas of elementary mathematics.

- http://mathfriend.org/forum/index.php?showforum=62
   Mathematics and Friends: English-speaking Vietnamese olympiad mathematics forum; contains a section for geometry problems.
   <u>Diendantoanhoc</u> is a greater forum but it is in Vietnamese.
- http://www.princeton.edu/~ploh/
   Po-Shen Loh: Among mathematical publications, this site contains some olympiad materials.
- http://www.bmoc.maths.org/
   British Mathematical Olympiad: Includes the questions of previous years.

# German pages

- http://www.emis.de/MATH/JFM/
   Jahrbuch über die Fortschritte der Mathematik: Freely accessible reviews of mathematical papers published until 1942.
- http://wurzel.org/
   Die Wurzel: A mathematics periodical for school and high school students. Two special issues are online and free accessible.
- http://matheplanet.com/
   Matheplanet: Ein Mathematikforum, in dem teils schwierigere mathematische Probleme diskutiert werden.
- http://www.mathematik.uni-muenchen.de/personen/fritsch.html
   Rudolf Fritsch: Homepage von Professor Rudolf Fritsch mit (u. a.)
   Arbeiten zur Elementargeometrie.
- http://www.uni-flensburg.de/mathe/zero/zero.html
   ZERO: Interactive Mathematics, Geometry with Java applets (containing some triangle centers and theorems in Geometry).
- http://math4u.de/
   Math4u: Eckard Specht's online problem collection (with solutions; each problem in GIF, PS and PDF formats). Good reference for elementary triangle geometry.

• http://dynageo.de/

**Euklid DynaGeo**: A quite powerful program for dynamical geometry with the computer. The newer versions (2.5-) create animated drawings

 http://www.uni-duisburg.de/SCHULEN/STG/jufopage/indexjufo.html (offline)

see also: http://www.uni-

duisburg.de/SCHULEN/STG/Wettbewerbe/jugendforscht.htm (offline)

**Jugend forscht at Duisburg**: Some works for the "jugend forscht" competition, including Triangle Geometry.

• http://www.bundeswettbewerb-mathematik.de/

Bundeswettbewerb Mathematik: The German National Mathematics Competition (former FRG olympiad). Some of the problems are on geometry. The page <a href="http://www.bundeswettbewerb-mathematik.de/imo/aufgaben/aufgaben.htm">http://www.bundeswettbewerb-mathematik.de/imo/aufgaben/aufgaben.htm</a> contains the problems and solutions of the recent German IMO team selection tests.

http://lwmb.de/

Landeswettbewerb Mathematik Bayern: The Mathematics Olympiad of Bavaria. The problems are identical with the Mathematics Olympiad of Baden-Württemberg, which has its website <a href="http://landeswettbewerb-mathematik.de/">http://landeswettbewerb-mathematik.de/</a>, but the Bavarian site contains more solutions

http://www.mathematik-olympiaden.de/
 Mathematik-Olympiaden e.V.: The homepage of the German Mathematics-Olympiad (former GDR olympiad).

- http://groups.google.de/group/de.sci.mathematik/topics?hl=de&lnk de.sci.mathematik: Google group discussing mathematical topics. Unfortunately flooded with spam.
- http://www.imosuisse.ch/

Schweizer Mathematik-Olympiade: The Swiss Mathematics Competition. The site features the problems and solutions of competitions from previous years as well as a forum.

http://oemo.at/

Österreichische Mathematik-Olympiade: This is the site of the Austrian Mathematics Competition and contains problems and solutions of previous years' rounds as well as a forum.

http://eckartschmidt.de/

Eckart Schmidt: Aufsätze über Elementargeometrie. Die meisten Beweise werden jedoch analytisch geführt.

http://www.mi.uni-erlangen.de/~barth/skripten.shtml
 Skripten von W. P. Barth: Für Geometer ist insbesondere "Kreise" interessant. Allerdings wird dort weniger elementar als analytisch mit Hilfe der Linearen Algebra vorgegangen.

## **Dutch** pages

- http://www.pandd.demon.nl/meetkunde.htm
   Dick Klingens' Meetkunde: Trusted geometry site with lots of interesting theorems and proofs.
- http://home.wxs.nl/~lamoen/wiskunde/wiskunde.htm
   Floor van Lamoen (partly English): The website of a geometer, Floor van Lamoen. Some notes on Triangle Geometry.
- http://www.math.leidenuniv.nl/~naw/
   Nieuw Archief voor Wiskunde: Dutch periodical publishing i. a. geometry articles.

# French pages

- http://pagesperso-orange.fr/jl.ayme/
   Jean-Louis Ayme: One of the prolific elementary geometers nowadays.
- http://g.boutte.free.fr/articles.htm
   Gilles Boutte (partly English): Some articles on Triangle Geometry.

# Russian pages

http://www.mccme.ru/mmmf-lectures/books/

**Biblioteka "Matematicheskoe prosveshjenie"**: Booklets based on lectures for school students. See, for example, Prasolov's handout on isogonal conjugation.

#### • http://zadachi.mccme.ru/

Geometricheskie zadachi: A collection of geometrical problems with solutions (including some advanced results of Triangle Geometry). Certain dynamic Java applets.

#### http://kvant.mccme.ru/

**Kvant**: A Russian/Soviet journal for Elementary Mathematics founded in 1970. Several old issues are archived in GIF format.

#### http://plm.mccme.ru/

**Populjarnye lekzii po matematike**: Downloadable scans of a really famous series of booklets on elementary mathematics.

#### • <a href="http://www.allmath.ru/">http://www.allmath.ru/</a>

Allmath.ru: Collection of books on school and university mathematics, downloadble in DjVU format.

# • <a href="http://www.math.ru/">http://www.math.ru/</a>

Math.ru: Another library of scanned books, free to download.

#### http://math.ras.ru/

Rossijskaja akademija nauk - zhurnaly otdelenija matematiki: Freely downloadable, recent mathematical journals by the Russian Academy of Sciences.

http://sci-lib.com/subject.php?subject=1
 Boljshaja nauchnaja biblioteka: Another open DjVU book collection.

### Internet Libraries

A grossly underestimated source of mathematical texts. You can find works of Newton, Gauss, Cayley and hundreds of other historical authors - but also newer textbooks and thousands of books you have never heard of before. I have given up sorting these links into the above language categories since many libraries contain works in very different languages - e. g. some French libraries containing German texts.

#### • http://www.archive.org

Internet Archive: Besides the famous wayback machine that stores and makes accessible older versions of websites, this ressource contains a number of historical books.

#### http://www.hti.umich.edu/u/umhistmath/

The University of Michigan Historical Mathematics Collection: Really lots of wonderful old literature can be downloaded in PDF and GIF formats (including the geometric works of Lémoine, F. G.-M., Brocard, Steiner and Casey).

- http://historical.library.cornell.edu/math/
   Cornell University Library: Historical Math Monographs: Another great historical collection, including various geometry books.
- http://dz-srv1.sub.unigoettingen.de/cache/browse/AuthorMathematicaMonograph.WorkConta
   Göttinger Digitalisierungszentrum (mathematical part): Historical books mostly in German and Latin.

## http://gallica.bnf.fr/

**Gallica**: A French digital library, with historical books in various languages. You can use the European Library to search the Gallica catalogue.

## http://matwbn.icm.edu.pl/

Kolekcja matematyczno-fizyczna: Polish collection with a number of English works.

- http://www.sunsite.ubc.ca/DigitalMathArchive/
   Digital Mathematics Archive: On elementary level, this is mainly interesting for Euclid's Elements.
- http://www.numdam.org/
   Numdam: French project digitizing and making accessible tons of literature.

Corrections, precisions or additions to this link list are welcome.

PS. Thanks to Dick Klingens for the background picture.

Links on Geometry

Back to the main site

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