

Open Problems

**So You Want to
Be Famous?**

A Short Bibliography of Books on Hilbert's 23 Problems

The Honors Class: Hilbert's Problems and Their Solvers by Ben Yandell gives a nice introduction to the problems and their conquerors.

TITLES AVAILABLE IN THE UTA COLLECTION

Concerning the Hilbert 16th problem	Yu Ilyashenko; S. Yakovenko	QA 371 .C66 1995
Hilbert's tenth problem: relations with arithmetic and algebraic geometry	Jan Denef	QA242 .H55 2000
Bifurcation of planar vector fields and Hilbert's sixteenth problem	Roussarie, Robert H.	QA380 .R68 1998
The Stokes phenomenon and Hilbert's 16th problem	B.L.J. Braaksma; G.K. Immink; M. van der Put.	QA 371 .S8478 1996
Hilbert's fourth problem	Pogorelov, A. V.	QA 681 .P5913
Hilbert's third problem: scissors congruence	Sah, Chih-han	QA 491 .S23 1979
The Poincare conjecture: in search of the shape of the universe	O'Shea, Donal	QA612 .O83 2007
Poincare's prize: the hundred-year quest to solve one of math's greatest puzzles	Szpiro, George	QA43 .S985 2007
Ricci flow and the Poincare conjecture	Morgan, John W.	QA670 .M67 2007
Mathematics: the new golden age	Devlin, Keith J.	QA93 .D46 1999
Mathematical events of the twentieth century	A.A. Bolibruch; Yu. S. Osipov; Ya. G. Sinai	QA26 .M38 2006

**TITLES NOT AVAILABLE IN THE UTA COLLECTION
(They Are Available through Interlibrary Loan)**

TITLE	AUTHOR
Hilbert's 1st problem : Cantor's continuum hypothesis	Dannon, H. Vic.
Convex polyhedra with regularity conditions and Hilbert's third problem	Rajwade, A. R.
Hilbert's third problem and the K theory of toric varieties	Morelli, Robert Michael
Hilbert's third problem (Tret'ja problema Gil'berta, engl.)	Boltjanskij, Vladimir Grigor'evic; Silverman, Richard A.
Die Axiomatisierung der Wahrscheinlichkeitsrechnung und ihre Kontexte : von Hilberts sechstem Problem zu Kolmogoroffs Grundbegriffen	Hochkirchen, Thomas
Every proper smooth action a Lie group is equivalent to a real analytic action: a contribution to Hilbert's fifth problem	Illmann, Sören.
Investigations on Hilbert's fifth problem for non locally compact groups.	Enflo, Per
Parametric Lie group actions on global generalised solutions of nonlinear PDEs : including a solution to Hilbert's fifth problem	Rosinger, Elemér E.
The structure of locally compact groups and Hilbert's fifth problem	Gluskov, V. M.
Hilbert's seventh problem	Omundson, Janet Heister
A note concerning a problem related to Hilbert's tenth problem	Chowla, Sarvadaman
Diophantine sets, primes, and the resolution of Hilbert's 10th problem	Cabusora, Lawrence
Extension of Hilbert's tenth problem to some algebraic number fields and related results	Shlapentokh, Alexandra
Extensions and corollaries of recent work on Hilbert's tenth problem	Davis, Martin
Hilbert's 10th problem is unsolvable	Davis, Martin
Hilbert's tenth problem	Matiasevich, I. V.
Hilbert's tenth problem	Sussmann, H. J.
Hilbert's tenth problem	Matijasevic, Jurij V.
Hilbert's tenth problem	Grudin, Jonathan Thomas
Hilbert's tenth problem : diophantine classes and extensions to global fields	Shlapentokh, Alexandra
Hilbert's tenth problem : a historical prospective	Lowry, Frank A.
Hilbert's tenth problem : relations with arithmetic and algebraic geometry	Denef, Jan
Hilbert's tenth problem and arithmetic geometry	Eisentraeger, Anne Kirsten.
Hilbert's tenth problem: an introduction to polynomials and computation theory	Safran, Charles
Julia Robinson and Hilbert's Tenth Problem	George Csicsery
Miniworkshop: Hilbert's tenth problem, Mazur's conjecture and divisibility sequences : January 19th - January 25th, 2003	Oberwolfach
Miniworkshop: Hilbert's Tenth [Tenth] Problem, Mazur's Conjecture and	Corp Author

TITLE	AUTHOR
Divisibility Sequences: 19.01. - 25.01.2003	
No solution in the originally intended sense : the unsolvability of Hilbert's Tenth Problem as a special case of Gödel's Incompleteness Theorem or Hilbert to Gödel and back again: a logician's tale	Sellin, Angela
Notes on Hilbert's tenth problem : an introduction to unsolvability	Smorynski, C.
On Hilbert's tenth problem	Swanepoel, C. J.
On Hilbert's tenth problem and its analogues for R and C	Lee, Chin Soon
The Riemann hypothesis and Hilbert's tenth problem	Chowla, Sarvadaman
The solution to Hilbert's tenth problem	Cooper, Sarah Frances
Using a quantum algorithm to explore Hilbert's tenth problem and its implications	Chuo, Erh Chien
Ball model for Hilbert's twelfth problem	Holzappel, R.-P.
Classical motivation for Hilbert's Twelfth Problem	Roberts, Boyd B.
Hilbert's 12th problem, complex multiplication and Shimura reciprocity	Stevenhagen, Peter
Moduli fields of CM-motives applied to Hilbert's 12th problem	Wei, Wafa
Counterexample to Hilbert's fourteenth problem for the 3-dimensional additive group	Mukai, Shigeru
Geometric realization of T-shaped root systems and counterexamples to Hilbert's fourteenth problem	Mukai, Shigeru
Bifurcations of planar vector fields and Hilbert's 16th problem	Roussarie, Robert H.
Concerning the Hilbert 16th problem	Il'iashenko, IU. S.; Yakovenko, S.
Global bifurcation theory and Hilbert's sixteenth problem	Gaiko, Valery A.
Hilbert's 16th problem : how many cycles?	Coleman, Courtney S.
Hilbert's 16th problem and computation of limit cycles	Wang, Sharon X.
Nine papers on Hilbert's sixteenth problem	Gudkov, Dmitrii Andreevich; Utkin, G. A.
On Hilbert's 16-th problem	Luo, Dingjun
On the number of closed solutions for polynomial ODE's and a special case of Hilbert's 16th problem	Calanchi, Marta.; Ruf, Bernhard.
Ordinary differential equations and Hilbert's 16th problem	Ch`in, Yüan-hsün.
Subanalyticity and Hilbert's 16th problem	Denkowska, Zofia.
The Stokes phenomenon and Hilbert's 16th problem	Braaksma, Boele L
Zeros of abelian integrals and Hilbert's XVIth problem	Tanabé, Susumu.
A constructive, continuous solution to Hilbert's seventeenth problem, and other results in semi-algebraic geometry	Delzell, Charles Neal
Hilbert's seventeenth problem	Brown, John
Ordered fields and Hilbert's seventeenth problem	Addy, Edward Alton
Positive polynomials : from Hilbert's 17th problem to real algebra	Prestel, Alexander; Delzell, Charles Neal

TITLE	AUTHOR
Crystallographic groups : Hilbert's eighteenth problem	Ranalli, Ramona R.
An introduction to Hilbert's 21st problem	Anosov, D. V.
The 21st Hilbert problem for linear Fuchsian systems	Bolibruch, A. A.

A Very Short Bibliography of Websites on Hilbert's 23 Problems

Wolfram MathWorld

<http://mathworld.wolfram.com/HilbertsProblems.html>

Universität Bielefeld. Department of Mathematics

<http://www.mathematik.uni-bielefeld.de/~kersten/hilbert/problems.html>

Wikipedia

http://en.wikipedia.org/wiki/Hilbert%27s_problems