

# 【AMS MathSciNet 助力科研 第二期】

## ——深入了解MSC分类体系

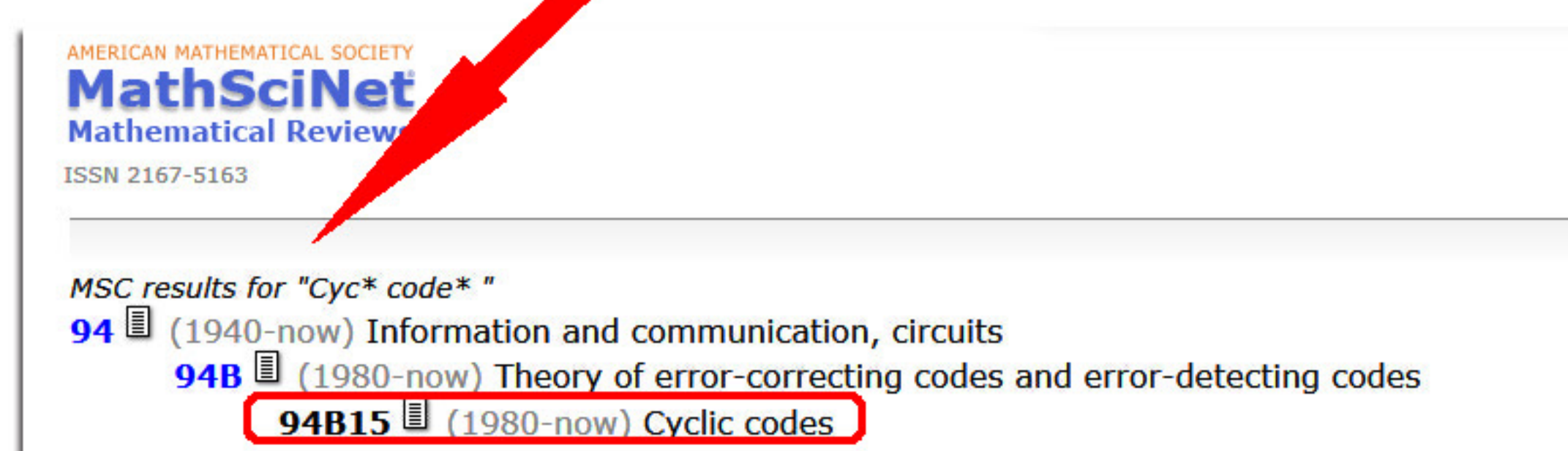
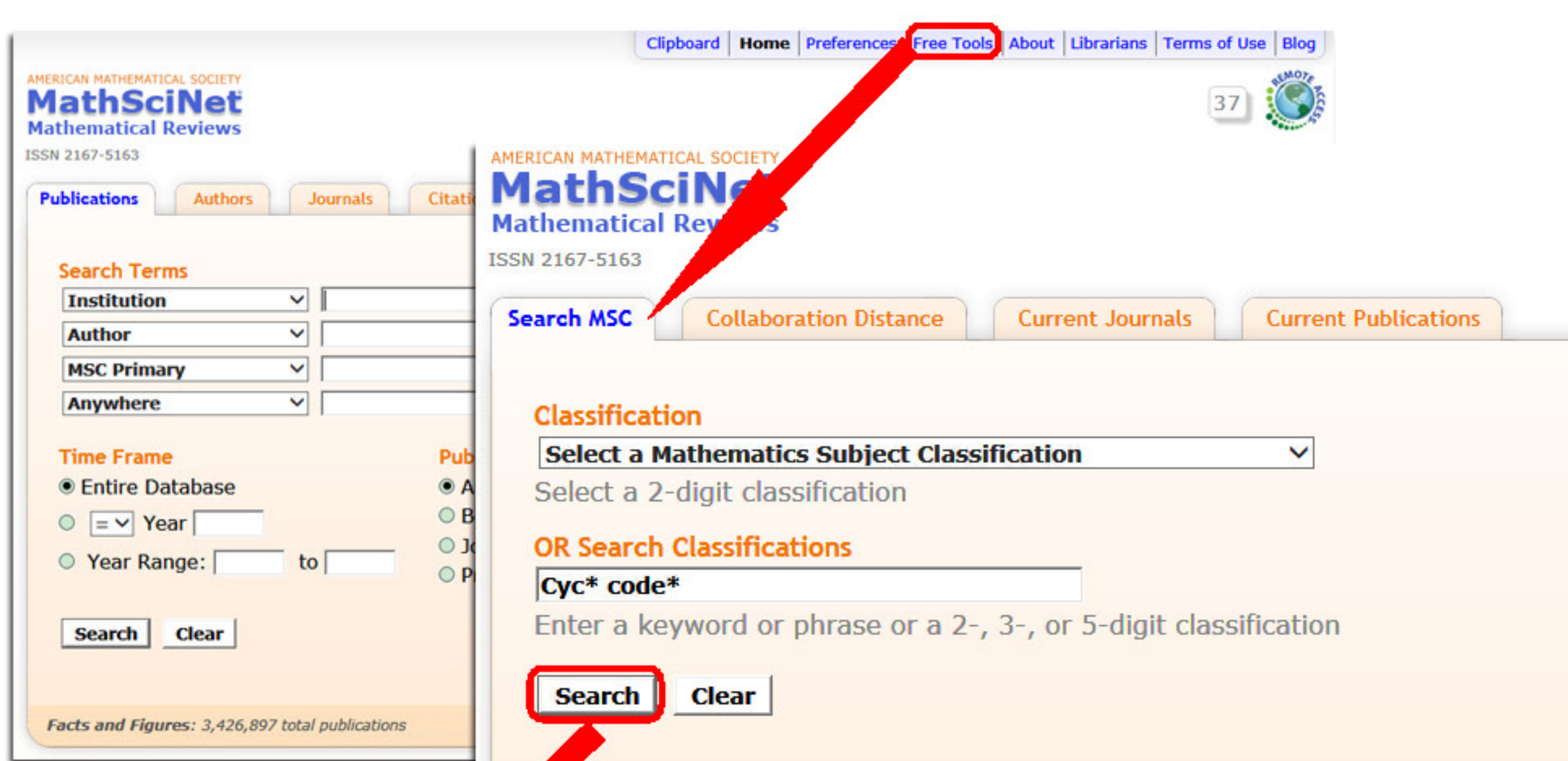
联系我们：18611837448  
ams@libstage.com  
2017年7月1日

MSC的全称是 Mathematics Subject Classification，是美国数学会(American Mathematical Society, AMS)编制的针对数学文献的分类法。AMS MathSciNet 及Zbl MATH都采用MSC分类体系。

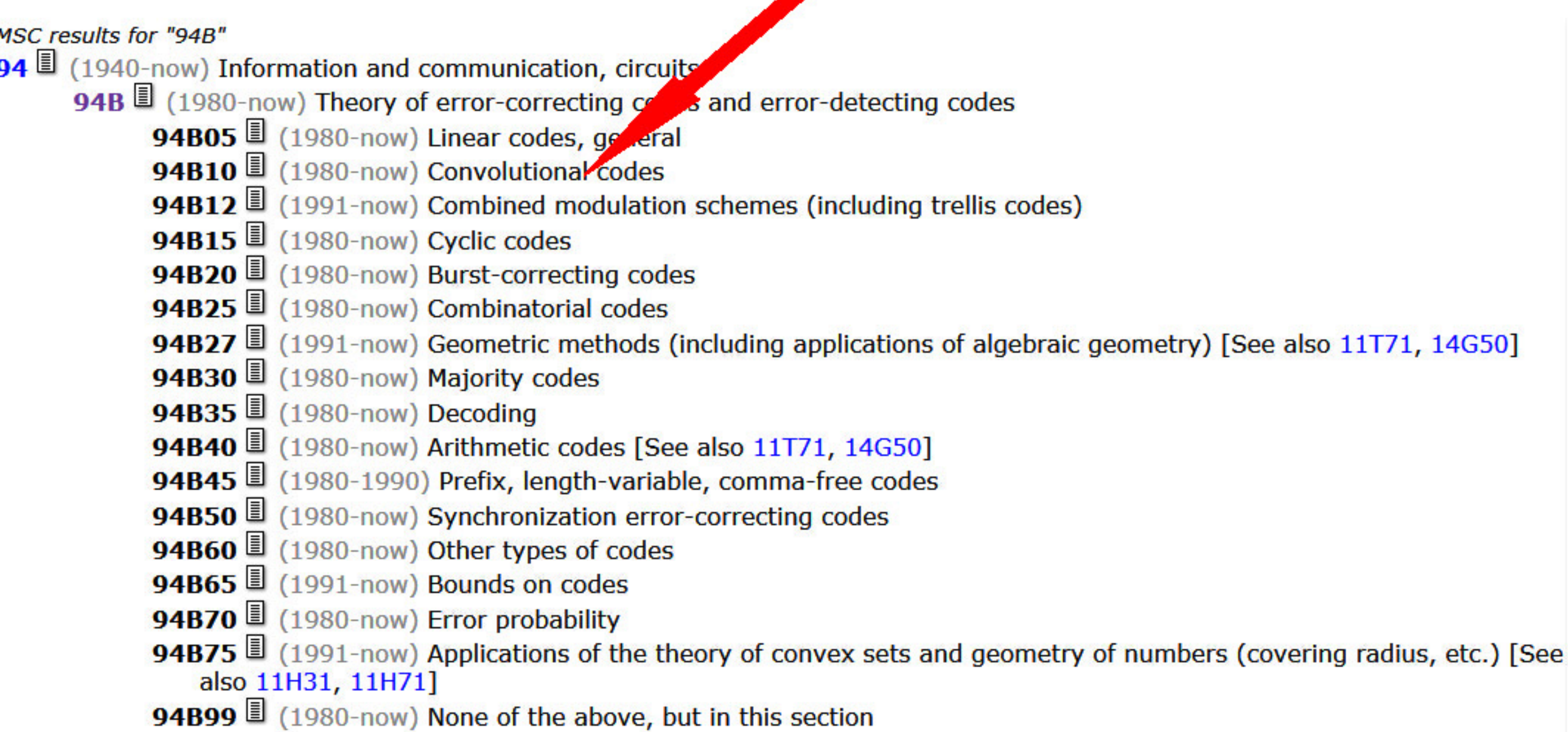
MSC分类法根据数学学科的发展每隔10年左右作一次修订，现存的版本有1980年版、1991年版、2000年版、2010年版，最新的版本是2010年版。MSC分类法修订工作是在AMS的协助下，由MR和Zbl MATH的编辑们完成的。目前MSC2020版正在修订阶段，如果您对MSC的分类体系需反馈，可访问 msc2020.org 提交反馈意见，该网站也可以查看同行提交的反馈信息。

MSC的分类号由五位字符构成，前两位为数字（一级分类），第三位是字母或“-”（与前两位数字组成二级分类），后两位为数字（与前三位字符组成三级分类），MSC分类体系基本涵盖了与数学有交叉的物理、化学、生物、计算机及其他自然科学、社会科学等各个方向。

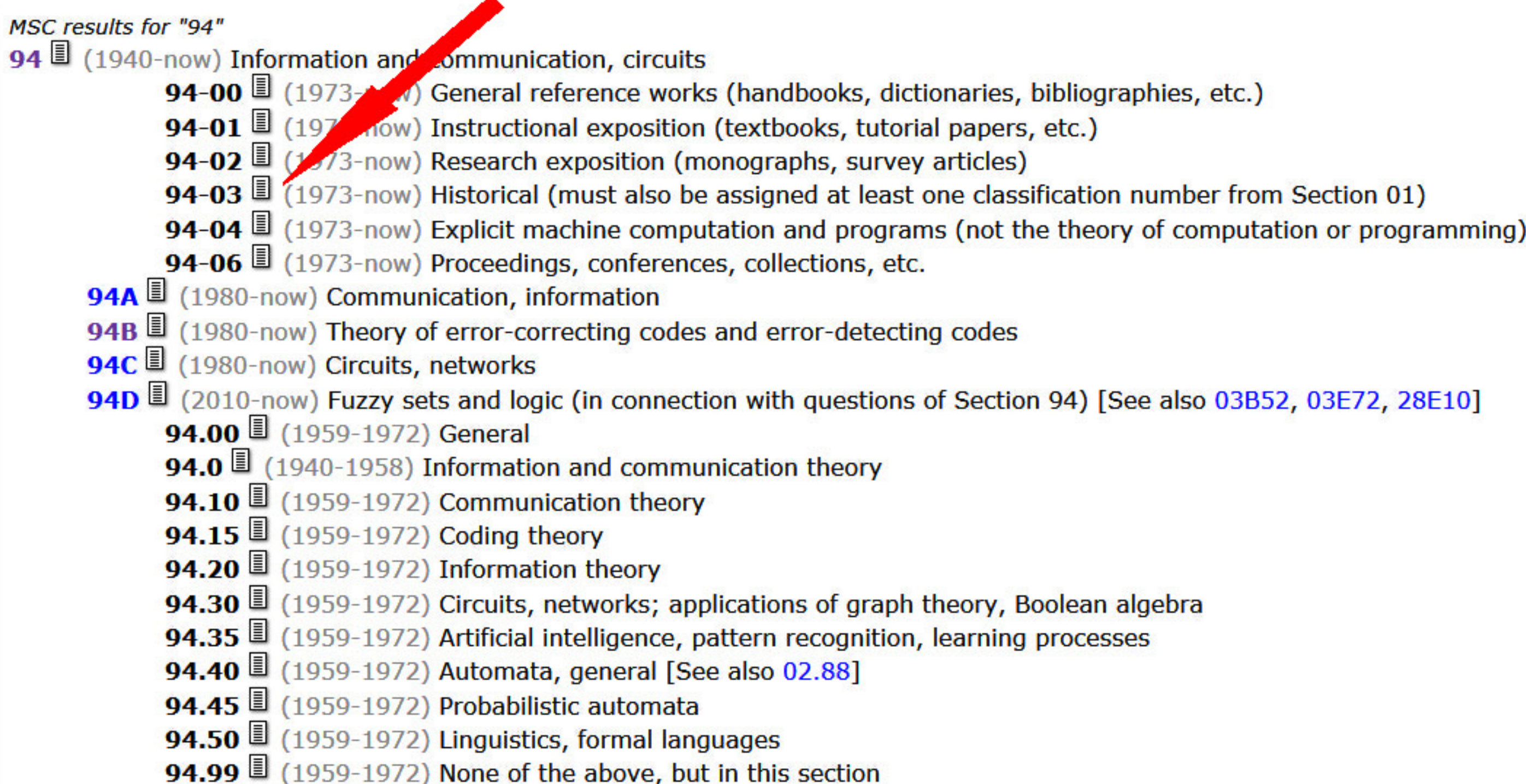
为方便读者使用MSC分类，AMS免费提供MSC在线版，读者可以浏览、检索全部MSC分类体系。在MathSciNet首页 (ams.org/mathscinet) 点击右上角的“免费工具箱/freetools”进入MSC在线版，以通信领域中的循环码 (Cyclic codes) 为例，MSC在线版支持模糊匹配，为提高检索率，采用 "Cyc\* code\*" 作为检索词，相关图片如下



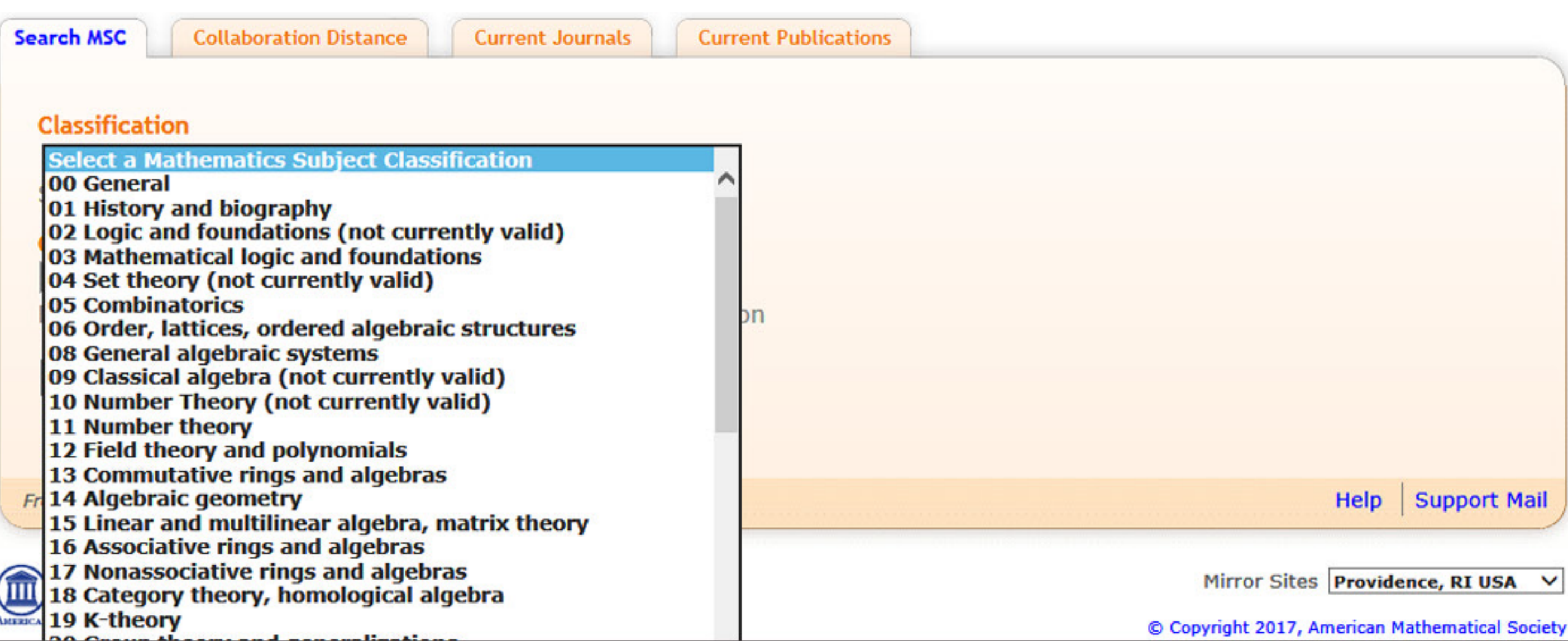
Cyclic codes的分类号为94B15，在分类号的后面有年份起止时间（1980·now），1980为该分类号的生效时间，now表示该分类号现在还在有效期。点击94B，可查看Cyclic codes的同级分类（三级分类）：



点击94，可查看Theory of error-correcting codes and error-detecting codes的同级分类（二级分类）：



点击页面右上方的免费工具箱/freetools可查看Information and communication, circuits等其他一级分类



下图为MSC一级分类清单，详细的分类表介绍见附件

00	General	45	Integral equations
01	History and biography	46	Functional analysis
02	Logic and foundations (2010版已停用)	47	Operator theory
03	Mathematical logic and foundations	48	Geometry (2010版已停用)
04	Set theory (2010版已停用)	49	Calculus of variations and optimal control
05	Combinatorics	50	Geometry (2010版已停用)
06	Order, lattices, ordered algebraic structures	51	Geometry
08	General algebraic systems	52	Convex and discrete geometry
09	Classical algebra (2010版已停用)	53	Differential geometry
10	Number Theory (2010版已停用)	54	General topology
11	Number theory	55	Algebraic topology
12	Field theory and polynomials	56	Topology (2010版已停用)
13	Commutative rings and algebras	57	Manifolds and cell complexes
14	Algebraic geometry	58	Global analysis, analysis on manifolds
15	Linear and multilinear algebra, matrix theory	60	Probability theory and stochastic processes
16	Associative rings and algebras	62	Statistics
17	Nonassociative rings and algebras	65	Numerical analysis
18	Category theory, homological algebra	68	Computer science
19	K-theory	69	General applied mathematics (2010版已停用)
20	Group theory and generalizations	70	Mechanics of particles and systems
21	Topological algebraic structures (2010版已停用)	71	Mechanics (2010版已停用)
22	Topological groups, Lie groups	73	Mechanics of solids (2010版已停用)
26	Real functions	74	Mechanics of deformable solids
27	Analysis (2010版已停用)	76	Fluid mechanics
28	Measure and integration	78	Optics, electromagnetic theory
30	Functions of a complex variable	79	Mathematical physics, physical applications
31	Potential theory	80	Classical thermodynamics, heat transfer
32	Several complex variables and analytic spaces	81	Quantum theory
33	Special Functions	82	Quantum mechanics, structure of matter
34	Ordinary differential equations	83	Relativity and gravitational theory
35	Partial differential equations	84	Relativity, astronomy (2010版已停用)
36	Differential equations, operational calculus	85	Astronomy and astrophysics
37	Dynamical systems and ergodic theory	86	Geophysics
39	Finite differences and functional equations	90	Operations research, mathematical programming
40	Sequences, series, summability	91	Game theory, economics, social and behavioral sciences
41	Approximations and expansions	92	Biology and other natural sciences, behavioral sciences
42	Fourier analysis	93	Systems theory, control
43	Abstract harmonic analysis	94	Information and communication, circuits
44	Integral transforms, operational calculus	97	Mathematics education