PhDs in Mathematics at the University of Illinois
(Mostly those known by Neal R. Wagner)

Illinois PhDs for a given year can be found as follows: Start with the Mathematics Genealogy Project: https://genealogy.math.ndsu.nodak.edu/ Under "Name of School", type "University of Illinois" and under "Year of Degree" type a year. This gives all of the degrees from the University of Illinois at Urbana-Champaign for that year. Often I found I remembered a lot of stuff, but not the name, which I could recognize when I saw it. Check out the numbers beside each year below – an amazing number of PhDs at one school. Here are few names from different years that I recognized. In most cases I tried to look them up online.

1966 (38):

Kirti Oberi, Bartle, "Spectral Theory on Locally Convex Spaces."
Don Stancl, Reiner. (No title given)
Karl Kenneth Norton, Bateman, "On Homogeneous Diagonal congruences of Odd Degree."
A good friend of mine. We often shot billiards together. He took a position at the University of Colorado, Bolder (a good school, but also a notorious party school). Very impressive research in number theory.
He taught several undergrad math classes, and famously
      o flunked those who were hopelessly bad,
      o also flunked those who were bad but not hopeless,
      o eventually fired because of this,
      o married with 2 children, then divorced,
      o had math grant support even with no position,
      o wrote a novel (self-published) with a main character essentially himself, still upset over getting fired for being uncompromising.

1967 (34):

Vladimir Drobot, Trjitzinsky, "Quasi-Dynamical Systems." Employed at SUNY at Buffalo, then Santa Clara University, and then San Jose State University. (His early life was crazy. During WW II in Russia and Poland.)
Ken Fine, Trjitzinsky, "Topological Consequences of Poisson Stability in Dynamical Systems." Joined the think tank in Washington, DC, and then became a VP at Intel, became wealthy,
Marshall Fraser, Eagon, Reiner, "Multiplicites and Grothendieck Groups"
Died in San Francisco from AIDS, during the terrible early period. I visited him several times, and only then realized that he was gay. A year after sending a Christmas card, a family member (sister, maybe) wrote to explain that he had

died "unexpectedly" the year before. (A very stressful time for her and she could only write a year later.) He wrote a number of elementary mathematics books. We had jointly written up material on vectors for beginning calculus students, since for political reasons the department wasn't teaching vectors, but teaching classical (crap) geometry. We wanted to stick a sign on the office door of a faculty member who kept vectors out of calculus: ``Nineteenth Century Mathematician at Work."

Phil Nanzetta, Weinberg, "Maximal Lattice-Ordered Algebras of Continuous Functions." I visited him years after graduation. His wife was a very successful flutist, with published CDs and such. In 1971 he published a small hardcover book titled "Set Theory and Topology", 117 pages. I think it's problem-solving oriented. He dedicated it to a species of wolf "that is almost extinct." At his tenure review they said he'd published a biology book. (Talk about toxic tenure reviews!) He worked for some version of the National Bureau of Standards somewhere, and eventually was marketing a self-publishing service, before you could do it at Amazon.

Alexander, Stephanie, Bishop, "Reducibility of Euclidean Immersions of Low Codimensions." Married to another faculty member and kept on as instructor for that reason.

Cooper, Jeffery, Carroll, "Some Aspects of Abstract Linear Evolution Equations in Hilbert Space." (I sort of remember the name.) I assume that https://math.umd.edu/~jcooper/ is our Jeffery Cooper.

1968 (45):

Michael Dollinger, Bartle, "Some Aspect of Spectral Theory on Banach Spaces." Worked at Louisiana State University, the American Civil Liberties Union, and Pacific Lutheran University. Now Professor Emeritus.

Joe Fisher, Dade, "Decompositon Theories for Modules," Weird character, loved gross jokes.

Tom Kearns. Block, "On Representationsof Lie Algebras of Classical Type", went to the University of Delaware and then the University of Kentucky where he became chairman and then retired.

K. Brooks Reid, Parker, "Structure in Finite Graphs." Had four PhD students at Louisiana State University where he became a full professor. Then he became "founding faculty" a the new Cal State University in San Marcos, California.

Ralph Showalter, Ting, "Pseudo-Parabolic Partial Differential Equations." Hugely successful at UT. After retiring as an Emeritus Professor in 2003, went to Oregon State University,

Robert Staudte, Blyth, "Invariance Theory and Sequential Estimation". Went to Michigan State University and then LaTrobe University in Melbourne, Australia. Dollinger took a sabbatical leave there and co-authored 7 papers.

Bill Stout, McCullough, "Corresponding Residue Systems in Normal Extensions of Algebraic Number Fields."

Ellen Torrance, Bartle. "Adjoint of Operators on Banach Spaces", Vlad and Mike went to eastern Europe with her. Supposedly because of her clothing (and other things?) locals mistook her as typical Polish or Russian.

Ronald C. Weger, 1968, Ketchum, "A Condition for Positive Definiteness on Groups." My roommate for one year. Was willing to tutor any student in many subjects. Very smart. Vision limited. Provided a key clever equation for my office mate (thanked in the thesis). Retired. Whole career was at SD School of Mines and Technology, teaching especially computer science. I corresponded with him a couple of years ago. He had some interesting recent publications.

1969 (41):

Mark Hale, Suzuki, "On Simple Groups Related to Zassenhaus Groups." In mathematics education somewhere.

John Case, McLaughlin, "Enumeration Reducibility and Partial Degrees." Very smart. He was visiting El Paso and asked to give a talk. We had just interviewed a weak candidate for a job. (After 25 minutes, the candidate said that he was done. I was the head of his committee, so I frantically asked questions. Who stops their interview lecture after 30 minutes? A loser.) Case's talk was really good. Of course he didn't want a job in El Paso. Partly because of the contrast, it was very easy to turn down the candidate. Fancy publication: https://link.springer.com/article/10.1007/s00153-024-00958-x

Janice Zemanek, Reiner, (no title given).

David Arnold, Rotman, "Torsion-Free Modules of Finite Rank over a Discrete Valuation Ring." Has a Wikipedia page! Recently deceased. Had a named professorship position at Baylor University. Very successful. Lots of publications. 18 grandchildren, 6 great-grand children (6 more than me).

David Ballew, 1969, Fossum, "Module Index, Projective Modules and Inversitble Ideals." Taught (I think) at SD School of Mines and Technology, I saw him several times at math conferences.

1970 (44):

Don Behan, Miles, "On Some Problems Concerning Composition Semi-Groups of Analytic Functions." His advisor was an older big wheel in complex variables. A terrible person. That advisor was even making fun of him. He felt he had no chance of finishing with that advisor. I talked him into taking the issue to the chair, Bateman, who had Asst Prof Miles take him on as his first

student: Joseph Miles, son of an older faculty member named Miles. Behan gave me credit for saving his PhD (and his ass).

Pat Floury, Barr, "Aspects of Harrison's Homology Theory." I found an article by Pat: "On a Class of Idealizers" JOURNAL OF ALGEBRA 58, 342-349, (1979). It gives his address as SUNY at Platsburgh. I remember now that he ended up there initially. I interviewed there, but didn't like the person in charge, who had written his own book for non-majors. Very abstract. Surely impossible to use, Later I found out that was true.

Gerald Giaccai, Chen, "A Hopf Algebra Generalization of the Wever-Specht Formula." worked at SUNY at Binghamton and then the US Federal Reserve Bank in Boston. We rented a house together for two years,

Neal Wagner, Hamstrom, "Global properties of the space of retractions of the two-sphere and the annulus." I was turned down by a number of schools and finally accepted El Paso. A few days later someone from York University in Toronto called and was angry that I'd already accepted somewhere else. It was the only place I hadn't heard from. York was and is a good school. My life would have been completely different if I'd gone there, but no regrets at all. I've been lucky in so many ways, but especially in not accepting admission to graduate work at Berkeley. (In the best case I would have transferred to Illinois after a year. Marshal Fraser attended a good, small liberal arts college. Nothing had prepared him for Yale, where he started.)

Harvy Wolfe, Gray, "2-Localizations and 2-Triples." He came to U of I as an English graduate student. He had attended a smaller school and loved English literature. Graduate work in English was no fun, crazy about details. So he changed over to mathematics! Wow! Here is his recent obituary:
https://www.wisniewskifuneral.net/obituary/DrHarvey-Wolff

1971 (39):

John Blanton, Cairns (with a great deal of help from Hamstom getting the thesis finished), "Spaces of Isotopic Triangulation of a 2-Cell." A Jesuit who left his order to marry. Entire career at St. John Fisher U in Rochester. Had three children.

Jean Cook, Griffith, "Decompositions of Finite Rank, Torsion-Free Abelian Groups."

Tapas Mazumdar, Carroll, "Existence Theorems for Noncoercive Variable Domain Evolution Problems." This student accepted a position where I was, at UT El Paso. He was smart and a crazy good teacher, but he produced no publications. He went to a small New Mexico school.

Don Pelietier, Boone, "Set Theory: When the Boolean Algebra is a Proper Class in the Ground Model." The Genealogy Project gives him one student at McMaster University.

Geore Sacerdote, Boone, "Some Logical Problems in Group Theory." Worked at BNN, a tech company in Cambridge, MA.

Ken Slonneger, Takeuti, "A Complete Infinitary Logic." Took a position at SUNY Fredonia and then at University of Iowa.

1972 (39):

Charles Neville, Rubel, "Ideals and submodules of analytic functions on infinitely connected plane domains."

1973 (39):

1974 (44):

Michael Penna, Osborn, "Differential Geometry on Simplicial Manifolds", a lot online about him. Fancy researcher in weird fields.

Deborah Rebhuhn, 1974, Felix R. Albrecht, "On the Set of Attainability" Somewhere listed as: Deborah Rebhuhn-Glauz. Online statement: "My name is Deborah Rebhuhn. I started my career as a professional mathematician (PhD under Felix Albrecht at the University of Illinois) then transitioned to industry as a systems engineer at Bell Laboratories and many of its descendants. When my job was offshored, I realized that what I had enjoyed most for the last few years was working with my daughter and her friends in my girl scout troop. I left systems engineering, moved to teaching via an alternate route. I have been teaching at a school for students with special needs for the last 11 years."

Marvin Israel, Hamstrom, "PL local homotopy," one of Hamstrom's students whom I knew.

1975 (47):
1976 (38):

John Vasak, Brown. "The Thickness of the Complete Graph."

1977 (42):
1978 (31):
1979 (35):

Janet Vasak, [Berndt](#), "Periodic Bernoulli Numbers and Polynomials." I met her at a security meeting. She was working in cryptography, with federal top-secret clearances.

Other PhDs in Mathematics

W. Dale Brownawell, my undergraduate roommate at the University of Kansas, two years behind me. He had an extremely successful career in transcendental number theory. PhD from Cornell in 1970. Advisors: Schanuel and Rinehart.

Wikipedia page: https://en.wikipedia.org/wiki/W._Dale_Brownawell
Quote from it: "In 2004, a conference at the University of Waterloo was held in honor of Brownawell's 60th birthday":
    https://www.fields.utoronto.ca/programs/scientific/03-04/brownawell/
Who gets their own conference named after them? Well, not me.

Brownawell once remarked to me that his field was too hard for ordinary graduate students. Too much to learn before you could work. He only had 3 successful grad students. He set one of them to proving something that "everyone" knew was true, but no one (of the elite transcendental numbers group) had bothered to work out and write down. Dale worked full-time for a whole summer getting his student finished with the thesis. (There are other fields like this: in mathematics/computer science, information theory is one such.)

Brownawell has been particularly angry at "meat-grinder" schools that would grind up and discard promising students. Back then, Berkeley, Yale, and the University of Chicago were such places. To illustrate this, when I would have been there, Berkeley admitted twice as many teaching assistants as they had faculty advisors for. It was difficult to find an advisor. Students would audit a course and then take that same course from another faculty member, trying to do very well and get a faculty advisor. In complete contrast, at Illinois professors sometimes openly said that were interested in getting students to advise. There were enough advisors to go around.

Hugh Montgumery, was an undergraduate (Sophomore or Junior) when Bateman stuck him into his problem-solving course. Maybe 15 students, all grad students in math except for Hugh. Bateman put him there because he was looking for something challenging for this student. We were similar in our abilities. I worked very hard. We all tried to be selected by Bateman to present our solutions. Hugh worked each weekend, all weekend, on each problem set. Often he had to invent a standard approach that he hadn't been taught. But he didn't seem like a genius, just similar to us and very hard-working. (He had a

girl friend who was pissed because he was always working weekends on problems.)

The next semester, Bateman had him review an article submitted to the Illinois Journal of Mathematics. Hugh found an error in the article, not some simple mistake but a basic error in the argument. He found another way to do the proof, wrote it up, and Bateman crammed it into the journal, with a footnote making clear that the author was part of the departments "undergraduate" program. The rest is history, as the Wikipedia article below shows. He went from being an ordinary member of our class to being a major mathematician. (He was also a nice kid, pretty young.) Wikipedia page: https://en.wikipedia.org/wiki/Hugh_Lowell_Montgomery

Bruce Berndt. A professor at the University Illinois, with an astonishing record, still as active professor at age 85. He is particularly known for his work on the mathematics of the great intuitive mathematician Srinivasa Ramanugan (1887–1920); some of his work: 266 articles published, 13 books, 18 books edited, and 37 PhD students finished (with 4 more working),

1969 Summer Mathematics Program for High School Students

By the summer of 1969, I'd finished my thesis, with only details to do, including getting it typed. I don't remember how, but I was recruited to be the third faculty member for this Summer course. The other two included Kenneth Appel, who in 1976, along with Wolfgang Haken, was to prove the Four Color Theorem. Appel had a reputation as a good teacher. I was covering topology. I handed out notes on the subject, but included a number of simpler (or simplified) problems from Bateman's course. There were 26 students. Some were almost unbelievably good, and others did nothing at all. One of the nothings, second lowest ranking, later got a mathematics PhD and had a reasonable career, but said he hadn't felt like working that summer. (Hey, there were girls in the group.) Several went on to careers much better than my own – one was a crazy with over 100 publications. A friend was recruited for the next summer and just used my notes, without my permission. I found that a bit annoying. I think that my summer was the most successful iteration of the program.

One student wasn't dependable in finishing all the work, but spent a lot of time trying to prove the four color theorem.   He came up with several subtle and interesting approaches, though not claimed to be a full proof.

On an evaluation, one or more said that I could be impatient with them. This still bothers me a little. I knew these were going to be the best students I would ever see. (And that was true.) It was clear that some would be more successful than me. (Also true.) But still I was (sometimes) "impatient." No wonder my own children turned down my help with their mathematics. Still, I spent a huge effort getting my daughter through UT's first calculus course, the hardest one, for engineers, math and computer science majors, that she took by mistake. (For technical reasons she couldn't drop it. It's too long to explain, but they had, maybe still have, a way to force a huge effort out of their poor calculus students. I had to work out each horrific problem set, and she worked on them independently. And I'm really good at elementary calculus problems. I wrote my own graphing program for that damned course – one that put the graph on a whole computer screen, unlike a graphing calculator. We would compare answers. Then I would find some mistake of hers, or sometimes I would be in error and she would be correct.)

I didn't realize it, but many of the students kept in touch with one another. Several were using my notes for help in a college course! I helped them annotate a picture their group with everybody's name.

Appel became famous, of course. Around 1990 he get tired of being in Urbana and decided to take a position somewhere on the east coast. Because of his fame, he didn't have to worry and was just going to leave U of I. A clever upper administrator talked him into "retiring" as a Professor Emeritus, a win-win.