

MARYLAND—DISTRICT OF COLUMBIA—  
VIRGINIA SECTION OF THE MAA  
NEWSLETTER



# MARYLAND - DISTRICT OF COLUMBIA VIRGINIA SECTION OF THE MAA NEWSLETTER

VOL. 10, NO. 2 EDITOR: MARY KAY ABBEY October 1988

## Notes from the Chair

Hopefully all of you have November 11 and 12 on your calendars and plan to attend the meeting at American University. Information concerning the speakers and other aspects of the program can be found in this newsletter. Thanks to Helen, the program looks superb.

Fred Rickey will be presenting the same minicourse on "Using History in the Teaching of Calculus" on Friday afternoon for our section that he will be giving at the national meeting in Phoenix. Since the cost of our minicourse is half of what it will be in Phoenix, this is quite a bargain. I encourage you to take advantage of this opportunity.

At the conclusion of the meeting an open forum will be held to discuss the formation of student chapters. Light refreshments will be served. Try to have someone from your college or university attend. Possible topics for discussion are how to go about establishing student chapters and what our section can do to encourage student participation. The MAA does not view these chapters as honorary. They feel that all students interested in mathematics should be encouraged to belong. Bill Sanders of James Madison University is our section's ad hoc coordinator for student chapter activities. Thanks to Bill for accepting this appointment.

At this meeting we have at least five student papers which is a good sign. I urge you to encourage the participation of your students in the activities of the section. Remember, if they present a paper, they will receive a free membership along with their choice of journal for one year. More student papers should result from the formation of student chapters.

The earlier you preregister for the meeting, the banquet, the Saturday lunch, and the minicourse, the easier it is for those persons in charge of the arrangements. Why not go ahead and preregister today???

Elizabeth Teles

## Fall Meeting November 11 & 12, 1988

Founded by the Methodist Church, The American University is a non-sectarian institution with a national and international student body representing widely divergent ethnic backgrounds. The campus is located in a beautiful low-density residential area of Northwest Washington, D. C. In this tree-lined area are many fine shops and restaurants.

Transportation is convenient by Metro bus and subway.

The Department of Mathematics and Statistics is located in Clark Hall, along with the Department of Computer Science and Information Systems. In Clark Hall and nearby Anderson Hall are microcomputer laboratories and other computer facilities. The University Computer Center, with its mainframe, is located in the Mary Graydon Center. The Department offers degree programs in Mathematics, Applied Mathematics, Statistics, Statistical Computing, and Mathematics Education, from the undergraduate to the doctoral level. Undergraduate and graduate programs in Actuarial Science are anticipated in the near future.

The campus is a happy mixture of greenery, classic and contemporary architecture. It is a short trip from campus to the many landmarks of Washington, the monuments and federal buildings, the many excellent galleries and museums, the Kennedy Center and other theaters and concert halls, and the increasingly abundant and excellent assortment of ethnic restaurants. Many of the University's faculty and student scholars make use of the governmental, international, and research facilities so plentiful in and around the Nation's Capital. Washington is a beautiful and exciting city. Be sure to check out the museum and theater offerings that are listed for your benefit. Come and enjoy it with us.

## PUBLISHERS TO VISIT

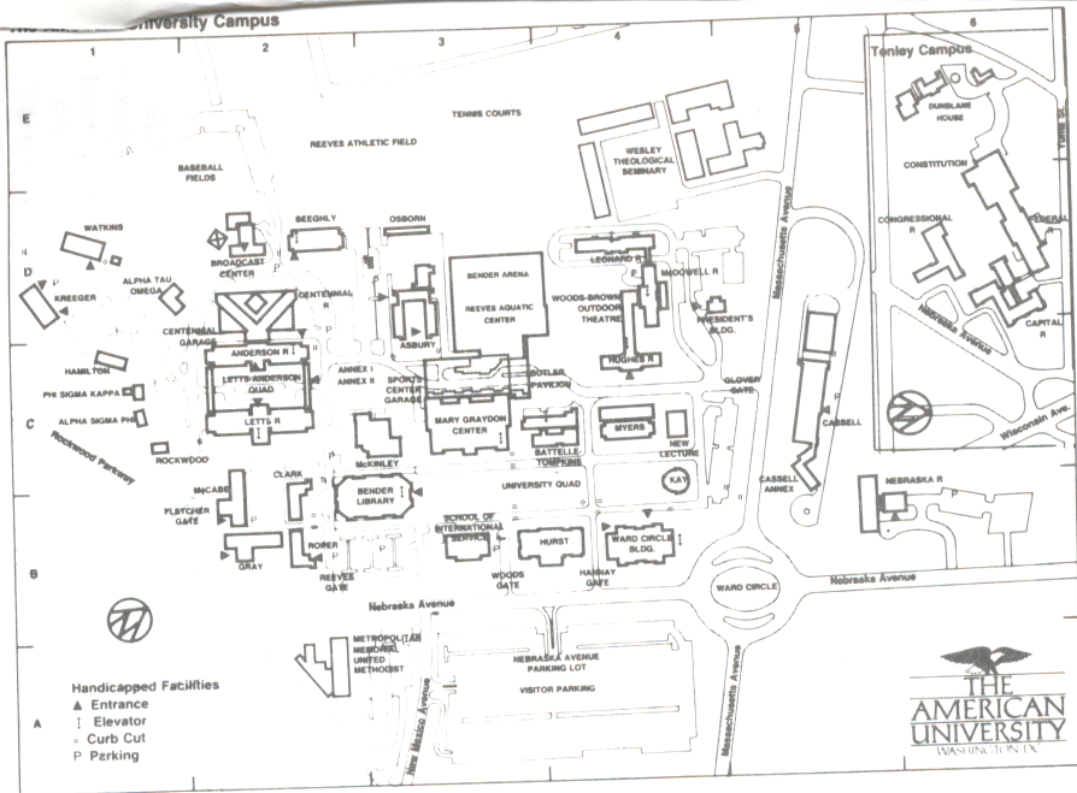
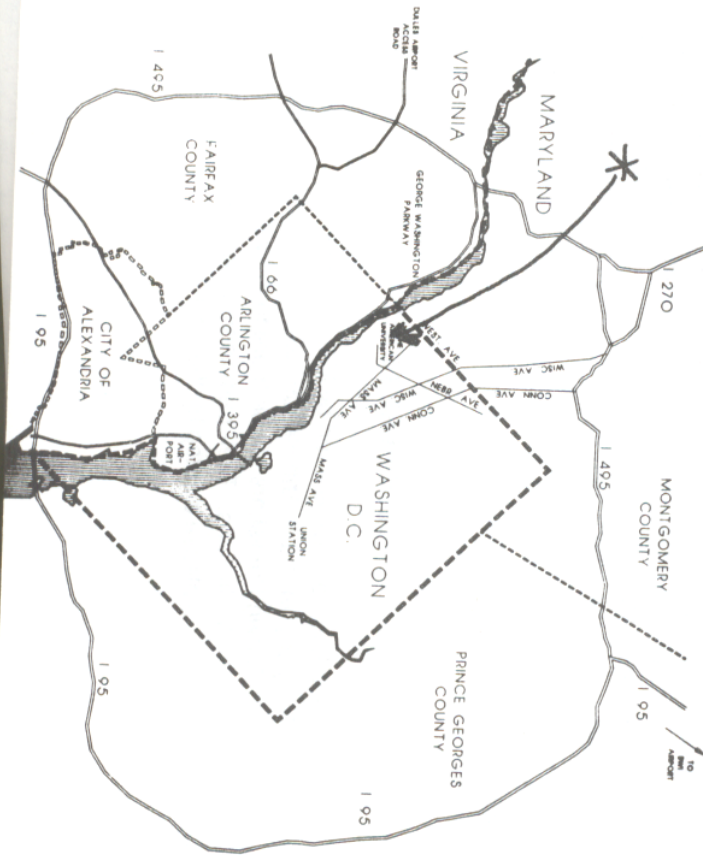
DC Heath will be represented by Ms. Debbie Westcott, West Publishing Company will have Ann Hendrickson, and Elizabeth Robbins from William C. Brown Publishers will be there to answer your questions about their offerings. Their participation helps to offset the cost of the meeting so please do stop by their exhibits.



## BANQUET AND LUNCHEON DETAILS

A reception and the MAA Fall Meeting Banquet have been planned for Friday evening at the University Faculty Club. The luncheon on Saturday will also be held there. Reservation for the banquet and/or luncheon must be made with Dr. David A. Schedler. Please use the form at the end of the newsletter. The deadline for reservations is November 3. Be sure to indicate your choice for the entree and circle the other choice you desire for lunch.

The reception is being sponsored by American University and all are invited even if you are unable to attend the banquet. There will be wine and beer as well as cheese and crackers at the reception. The banquet selections should have appeal for everyone. Included with each entree are onion soup, green beans almondine, baked potato with sour cream for the prime rib eaters, rice pilaf for all others, rolls, and coffee or tea. The luncheon menu consists of both cold and hot choices. The smorgasbord cold plate features sliced turkey breast, ham and roast beef with potato salad or cole slaw and fresh relishes. The grilled reuben is corned beef and Swiss on rye with sauerkraut and special sauce and comes with potato chips and a dill pickle spear. The Monte Cristo is a sandwich featuring turkey breast, ham and Swiss on rye, french dipped and lightly grilled. It also comes with potato chips and a dill pickle spear. All lunches include fruit sherbert and coffee or tea.



When entering the Nebraska Avenue parking lot, if an attendant is in the entrance booth, show your university shuttle pass or mention that you are a participant of the MAA meeting -- the parking fee will be waived.

Short Course  
Banquet/Luncheon  
Sessions

Building	Map Coordinates
Hurst Bldg.	B-4
Mary Graydon Ctr.	C-3
Ward Circle Bldg.	B-4

Subway Shuttlebus  
Parking

Building	Map Coordinates
Clark Bldg.	B-2
Neb. Ave. Lot	A3-4

## INVITED SPEAKERS

Even a good synopsis of the mathematical biography of **Professor Paul R. Halmos** defies restrictions on available space.

Suffice it to say that Professor Halmos' Ph.D. and previous degrees in mathematics are from the University of Illinois; and while his fifty years of teaching and research have been spread as far as Edinburgh, Montevideo and Australia, the majority of them have been spent at the University of Chicago, Indiana University and the Institute for Advanced Study at Princeton University. Presently, Professor Halmos is Professor of Mathematics at Santa Clara University. His awards, honors, and professional activities, too numerous to list here, will be duly noted on the Friday evening, November 11, when we are honored to have him deliver the invited address at the banquet of the Fall Meeting of the Maryland/District of Columbia/Virginia Section.

**Arthur Benjamin** received his BS in Applied Mathematics from Carnegie-Mellon University in 1983 and his MS from Johns Hopkins in 1985. He is currently pursuing his Ph. D. in Mathematical Sciences at Johns Hopkins as an NSF Graduate Fellow, concentrating in combinatorics and operations research. In 1988, he was awarded the Nicholson Prize of the Operations Research Society of America for his research paper "Graphs, Maneuvers, and Turnpikes."

When he is not entertaining audiences of students, educators, and scientists with his rapid calculation skills, he enjoys attending the theatre, playing backgammon, and performing magic.

**Professor Frederick Riskey**, Professor of Mathematics and Statistics at Bowling Green State University, received all his degrees from the University of Notre Dame, earning his Ph.D. in 1968 with a specialization in mathematical logic. Currently, his primary research interest is the history of mathematics. Last August, at the Summer Meeting of the MAA in Providence, Professor Riskey was named the recipient of an honor that was bestowed in 1983 on Professor Halmos, -- a George Polya Award for Exposition. In January, 1989, he will present a four-hour minicourse on "Using History in Teaching Calculus" at the Joint Mathematics Meeting in Phoenix. We are pleased to be able to benefit from his expertise at the minicourse Friday afternoon, November 11.

UNIVERSITY SHUTTLE VAN AT TOWNLEYTOWN SUBWAY STATION  
( EVERY 15-30 MINUTES; FRI.: 7:25 A.M.-11:40 P.M.; SAT.: 8:30 A.M.-8:40 P.M. )  
( SHOW YOUR SHUTTLE-VAN PASS INCLUDED IN THIS NEWSLETTER )





**THE AMERICAN UNIVERSITY**  
WASHINGTON DC

**SHUTTLE VAN**

**VISITOR PASS**

expires           NOVEMBER 13, 1988          

88-337X

When entering the Nebraska Avenue parking lot, if an attendant is in the entrance booth, show your university shuttle pass or mention that you are a participant of the MAA meeting -- the parking fee will be waived.



## MUSEUMS AND EXHIBITS

Hirshhorn Museum and Sculpture Garden (202-357-2700),  
Independence Avenue and 8th Street, SW --  
Alberto Giacometti, 1901-1966

National Air and Space Museum (202-357-2700), Independence Avenue  
and 6th Street, SW --  
European Space Agency Exhibition  
Voyager

National Archives (202-523-3000), Constitution Avenue and 6th  
Street, NW --  
Declaration of Independence, Bill of Rights, Constitution

National Gallery of Arts (202-737-4215), Constitution Avenue, 4th  
Street, 6th Street, NW --  
Raphaelle Peale: Still Lives (at East Building)  
Japan: The Shaping of Daimyo Culture 1185-1868 (at  
East Building)  
Michelangelo: Draftsman/Architect (at West Building)

National Museum of American History (202-357-2700), Constitution  
Avenue and 14th Street, NW --  
We the People: Winning the Vote  
"There's No Business Like Show Business.": Irving  
Berlin's Centennial  
Commemorating New Sweden

National Museum of Natural History (202-357-2700), Constitution  
Avenue and 10th Street, NW --  
The Making of a Dinosaur  
Crossroads of Continents: Cultures of Siberia and Alaska  
(This is a major jointly curated Soviet-North American  
exhibition.)

National Geographic Society, Explorer's Hall (202-857-7588), M  
Street and 17th Street, NW --  
The Lord of Sipan: Golden Treasures from the New  
World's Richest Unlooted Tomb  
Centennial Exposition: A Celebration of the National  
Geographic Society's 100th Anniversary

MATHEMATICAL ASSOCIATION OF AMERICA  
MARYLAND/DISTRICT OF COLUMBIA/VIRGINIA  
FALL MEETING

AMERICAN UNIVERSITY  
NOVEMBER 11 AND 12, 1988

FRIDAY, NOVEMBER 11:

MINICOURSE, 3:30 - 6:30:  
INCORPORATING THE HISTORY OF THE CALCULUS  
INTO THE CALCULUS CLASSROOM  
PROFESSOR V. FREDERICK RICKEY

BANQUET, 7:30 P.M.:  
INVITED SPEAKER: PROFESSOR PAUL HALMOS  
"IS YOUR MATHEMATICS THE SAME AS  
YOUR GRANDFATHER'S?"

**SATURDAY, NOVEMBER 12:**

**8:00 - 11:00 REGISTRATION, WARD CIRCLE BLDG.**  
**8:40 WELCOMING REMARKS**

Dean Betty Bennett, Dean of College of Arts and Sciences

ALL SESSIONS FOR CONTRIBUTED PAPERS WILL BE  
 HELD IN WARD CIRCLE BUILDING FIRST FLOOR  
 AND BASEMENT LEVEL OF THE WEST WING

**SESSION BEGINNING AT 9:00 A.M.:**

- |      |   |
|------|---|
| Room |   |
| 107  | "Bilinear Basics on the Complex Plane"<br>T. Roy Booker, Gallaudet University   |
| 108  | "The Green's Function Method for the<br>Supported Plate Boundary Value Problem"<br>Steven H. Schot, American University   |
| 2    | "Inequalities Revisited: An Innovative<br>Look That Stresses Geometric Understanding<br>As Well As Algebraic Competence"<br>Mary T. Trenor, Valparaiso University |

**SESSION BEGINNING AT 9:30 A.M.:**

- |      |  |
|------|--|
| Room |  |
| 107  | "A Strange Proof of the Gauss-Legendre<br>Duplication Formula for the Gamma Function"<br>Jack Clark, Western Maryland College  |
| 108  | "Communication in Mathematics: Teaching<br>Mathematics Majors to Write Proofs"<br>C.C. Hanna, United States Naval Academy      |
| 2    | "A Finite Difference Model for the Effect<br>of Granularity on Retinal Laser Burns"<br>Richard B. Tucker, Mary Baldwin College |
| 3    | "How Does Your Calculator Do Mathematics?"<br>Peter Turner, United States Naval Academy  |

**SESSION BEGINNING AT 10:00 A.M.:**

- |      |  |
|------|--|
| Room |  |
| 107  | "An Application of Computer Graphics to<br>Computing Polynomials"<br>Lawrence Crone, American University     |
| 108  | "An Elusive Recursion -- Captured By Using<br>a Pascal-like Pseudo-code"<br>William D. Reddy, Loyola College |
| 2    | "Rolle's Theorem on a Class of Triangles"<br>William M. Sanders, James Madison University                    |
| 3    | "Matrices of the Form $AB - BA$ "<br>William D. Wardlaw, United States Naval<br>Academy                      |

**SESSION BEGINNING AT 10:30 A.M.:**

- |      |   |
|------|---|
| Room |   |
| 107  | "MDEP: Software for Teaching Differential<br>Equations"<br>James Buchanan, United States Naval<br>Academy   |
| 108  | "Fractal Images: Theory, Procedure and<br>Applications"<br>Stephen D. Casey, American University  |
|      | "A Statistical Analysis of a Mathematics<br>Placement Test and Its Impact on Optimal<br>Setting of Cutoff Scores"<br>Richard Auer & Paul Maiste, Loyola College |

**11:00 MAA BUSINESS MEETING, ROOM 107**

**12 NOON - LUNCHEON, MARY GRAYDON CENTER,  
 UNIVERSITY CLUB  
 LUNCHEON SPEAKER: ARTHUR BENJAMIN,  
 JOHNS HOPKINS UNIVERSITY  
 "THE ART OF MENTAL CALCULATION"**

## SESSION BEGINNING AT 2:00 P.M.:

- |      |   |
|------|---|
| Room |   |
| 107  | "Probability and Statistics Tutorials"<br>Michael W. Chamberlain, United States<br>Naval Academy  |
| 2    | "A Successful Intervention Program for<br>High Ability Minority Students"<br>Linda B. Hayden, American University   |
| 108  | A Trilogy of National Superquest Award-<br>Winning Student Research Papers from<br>Thomas Jefferson High School for Science<br>and Technology, Fairfax, Virginia<br>(One-hour presentation) |
| 107  | "The Effectiveness of Various Priority<br>Queueing Algorithms as Applied to a<br>Multitasking System" - David Rosen   |
|      | "A Chaotic Analysis Technique for the<br>Planar Restricted Three-Body Problem"<br>- Eric D. Scheltr   |
|      | "Paths of Convergence to the Roots of<br>Unity by the Newton-Raphson Method:<br>An Investigation" - Manish Tuteja   |

## SESSION BEGINNING AT 2:30 P.M.:

- |      |   |
|------|---|
| Room |   |
| 107  | "The Relationship Among Levels of Mathematics<br>Anxiety in Elementary Classroom Teachers,<br>Selected Teacher Variables, and Student<br>Achievement in Grades Two Through Six"<br>Martha A. Brown, American University |
| 2    | "Perturbation of Eigenvalues of Stability<br>Matrices"<br>Betty Mayfield, Hood College  |

## SESSION BEGINNING AT 3:00 P.M.

- |      |   |
|------|---|
| Room |   |
| 107  | "The Formation and Activities of Student<br>MAA Chapters - a Discussion"<br>Elizabeth Teles, Montgomery College |

## THEATERS

Kennedy Center (Ticket Information: 202-254-3600)

Opera House (202-254-3770)

Washington Opera: *La Traviata* (Nov. 12), *Tosca* (Nov.

13, subscription tickets only, almost sold out)

Concert Hall (202-254-3776)

Kazuyoshi Akiyama (conductor), Janos Starker (cellist),

Nov. 12

Paul Hill Chorale, Richmond Symphony: *The Romanticism  
of Two Continents*, Nov. 13

Eisenhower Theater (202-254-3670)

*Driving Miss Daisy*, a comedy-drama by Alfred Uhry

Arena Stage (202-488-3300), Maine Avenue and 6th Street, SW

*Ring Around the Moon*, a comedy by Jean Anouilh

*Six Characters in Search of an Author*, a play by Pirandello

*Banjo Dancing*, with Stephen Wade, (the longest running show in

Washington theater history -- worth it)

Ford's Theater (1-800-448-9009) 511-10th Street, NW

*Jeeves Takes Charge*, a comedy by P. G. Woodhouse

## Governor's Report

The Board of Governors (BOG) met on Sunday, August 7, at the AMS Providence Meeting. The BOG's actions were written up on the front page of the September FOCUS, so this report will just add some comments and observations.

One item of special interest to our section was the discussion of the NSF 1988 "free" two-week workshops. These might inhibit grass roots efforts by sections to initiate five-day workshops and might undercut the current four or five successful Section workshops. (The NSF plans to look at this situation.)

There was an interesting commentary about the 17th International Mathematics Olympiad. An IMO number theory problem stumped four number theorists but it was solved by 11 high school students.

Some good news is that the membership keeps climbing, approaching 30,000; the bad news is that the estimated budget deficit has climbed in one year from 1/7 to 3/7 of a million dollars.



## Lodgings - Hotels

A block of rooms has been reserved at the Hyatt Regency at Bethesda for Friday and Saturday nights. The rate is \$69 per room per night. Call 1-301-657-1234 to make reservations. Mention that you are attending the MAA Fall meeting when you call. Space is guaranteed only until October 14 so please make your reservations as soon as possible. The hotel is located at the Bethesda Metro Center with elevators in the hotel leading to the Bethesda Metro Subway Station.

Following is a list of other hotels that are within seven miles of the American University.

Manor Inn Bethesda 1-301-656-2100 Two blocks from Bethesda Metro Station	\$62.70 \$71.59	single double
American Inn of Bethesda 1-301-656-9300 Four blocks from Bethesda Metro Station	\$45.00 \$50.00	single double
The Bethesda Ramada Inn 1-301-654-1000 Four blocks from Bethesda Metro Station	\$65.00	per room
Bethesda Holiday Inn 1-301-652-2000 Four blocks from Bethesda Metro Station	\$76.00	per room
Chevy Chase Motor Hotel 1-301-654-1400 Seven blocks from Bethesda Metro Station	\$49.00 \$55.00	single double
Days Inn 1-202-244-5600 Two blocks from Van Ness Metro Station	\$69.00 \$74.00	single double

## CAMPUS NEWS ITEMS

### Mount Vernon College

Milton Eisner, promoted to Professor, will spend the Spring semester at the University of Maryland.

Virginia R. Valentino, Ed.D., West Virginia University, has been appointed Assistant Professor.

### The Collegiate Schools

A new faculty member is Ms. Carole Dishman, AB in Mathematics Education, University of North Carolina, Chapel Hill.

Jane-Mason Ballcrue has been promoted to Chair and John Chewing is now the Director.

They are now offering a discrete mathematics course. Also they are very interested in classroom uses for the new calculators that have graphic capabilities. A contact person on their campus is Robin Edelstein, Math Department, N. Mooreland Rd., Richmond, VA 23229.

## FUTURE HIGH SCHOOL EXAM DATES

American Junior High School Mathematics Examination Thursday, December 1, 1988
American High School Mathematics Examination Tuesday, February 28, 1989*
American Invitational Mathematics Examination Tuesday, March 21, 1989
United States Mathematical Olympiad Tuesday, April 25, 1989

\*Please note change in date from previous issue.



# MEETING NOTES (or, My Worry List For Today)



## REGISTRATION FORM

Registration for Fall Meeting @ \$ 2.00 \$ \_\_\_\_\_

Banquet Reservation:

Roast Prime Rib Au Jus @ \$16.50 \$ \_\_\_\_\_

Chicken Breast Champignone @ \$13.50 \$ \_\_\_\_\_

Baked Flounder Imperial @ \$12.75 \$ \_\_\_\_\_

Luncheon Reservation:

Smorgasbord Cold Plate @ \$ 5.75 \$ \_\_\_\_\_

Grilled Reuben @ \$ 5.75 \$ \_\_\_\_\_  
(Choose soup or salad)

Monte Cristo @ \$ 5.75 \$ \_\_\_\_\_  
(Choose soup or salad)

Minicourse Registration @ \$20.00 \$ \_\_\_\_\_

TOTAL \$ \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Make checks payable to MAA and send by November 3, 1988 to:

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Department of Mathematical Sciences  
PO Box 2014  
Virginia Commonwealth University  
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