# A Collection of Research Processes for Genealogy and Proofs

**VOLUME TWENTY-NINE, SECTION 252** 

Copy of the Reply Letters to Some Responses

by

Dr. Dong-Keun Shin

# March 1998

Submitted to the Chair of
Department of Electrical Engineering and Computer Sciences
College of Engineering
University of California, Berkeley
Berkeley, CA 94720
U. S. A.

> May 28, 1997 Our Ref. S4/30-13L

Dr. Dan Molnar
Boeing Commercial Airplane Co.
Mail Stop 05-KA
3303 W. Casino Rd.
Everett, WA 98204-1910
United States of America

Dear Dr. Dan Molnar:

In relation to your suggestion tp read more MATLAB examples and various computing environments that deal with multiple huge files, could you recommend some good articles to read?

Sincerely,

Dr. Dong-Keun Shin

> May 28, 1997 Our Ref. S4/30-17L

Professor John Y. Hsu
Department of Computer Science
Cal Poly State University
San Luis Obispo, CA 93407
United States of America

# Dear Professor John Y. Hsu:

I sent an e-mail to you at jyhsu@calpoly.edu, but it was returned. When I have a chance, I will read your books to understand your views on Computer Networks, Architecture, and System Software.

Professor Donald E. Knuth is a very nice person indeed. Through my correspondence with him, I understand why people including you respect him so much.

Sincerely,

Dr. Dong-Keun Shin

> May 28, 1997 Our Ref. S4/30-18L

Professor Alessandro B. Contessa Rua Bela Cintra 1450 #152 São Paulo 01415-001, SP Brasil

# Dear Professor Contessa:

In regards to your letter of April 10, 1997, thank you for your suggestion about the wording of the 2<sup>nd</sup> paragraph of my letter. Since English is not my native language, I have difficulty in choosing the correct choice of words. However, I still feel that there is a reason why I prefer "discover" to "propose." I am certainly giving more value to what I found.

Sincerely,

Dr. Dong-Keun Shin

Faxes: 82-2-565-7907,82-342-718-9789

May 28, 1997 Our Ref. S4/30-18L

Amos R. Omondi
Department of Computer Science
GPO Box 2100
Adelaide 5001
Australia

Dear Prof. Amos R. Omondi:

Thank you for the remarks on your letter, dated April 15, 1997

As you suggested in your first remark, I asked a few reputable people including Professor Donald E. Knuth at Stanford University about my work. Professor Knuth and I conflicted on several matters as shown in the correspondence. From his response, I have realized that I failed in convincing him about my hash functions. However, I do believe that I have a right to hear a third opinion.

In relation to your third remark about naming my algorithm after myself, though we put girl's or boy's names on newly discovered typhoons, nobody insists on putting his/her name on it because it's of little importance who spotted it first. However, other discoveries such as a comet are different. People name the comet after the astronomer or the night watcher who first observed it. Naming a discovery is a matter of how significant and valuable the discovery is. People are generous towards a discoverer's wish to name his/her discovery after him/herself because they understand his/her dedication and effort in searching for unfailing truths. I think people will allow me to put my name on my findings because of this.

Thanks again for your fourth remark. I have always needed a few good reviewers, and am in the process of acquiring them soon.

#### Here are some references:

Shin, D. K. A Comparative Study of Hash Functions for a New Hash-Based Relational Join Algorithm. Pub. No. 91-23423, Ann Arbor: UMI Dissertation Service. (Tel: 313-761-4700 Ext. 2224, Fax:313-761-4700; Ask Ms. Lisa Maier or someone at UMI.)

Shin, D. K. and Meltzer, A. C. "A New Join Algorithm." ACM SIGMOD RECORD, Vol. 23, No. 4, Dec. 1994: 13-18.

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Sincerely,

Dr. Dong-Keun Shin

cc: President of the Flinders University of South Australia
Chair, EECS Department, College of Engineering, U. C. Berkeley, CA 94720

> May 28, 1997 Our Ref. S4/30-35L

President
Office of the President
The Flinders University of South Australia
GPO Box 2100
Adelaide 5001
Australia

Dear President of the Flinders University:

It is too early to talk to someone who hasn't read my articles. Please support him to look into my work.

Sincerely,

Dr. Dong-Keun Shin

Han This

Chairperson
Gesellschaft für Informatik e.V.
Wissenschaftszentrum
Ahrstraße 45, D - 53175 Bonn
Deutschland

May 28, 1997 Our Ref. S4/30-39L

# Dear Chairperson:

My recent correspondence with Professor Donald E. Knuth tells me that I need to ask your school's opinion about my research in Computer Science. I have attached our correspondence so that your Science and Engineering faculties may criticize and evaluate my ideas. For further investigation on my research, please read A Collection of Research Processes for Genealogy and Proofs which were submitted to the chair of Electrical Engineering and Computer Sciences Department at the University of California, Berkeley in the USA. The papers that I sent to Professor Knuth are included in Section 17, Volume 2 of the collection. My most recent publication, "The Theory of Massive Cross-Referencing," has appeared in The Proceedings of the Eighth International Conference on Software Engineering and Knowledge Engineering. You will also find it in Volume 10 of the collection.

My major accomplishments in Computer Science have been: (1) discovering Shin's massive cross-referencing (or Shin's join) algorithm, the best algorithm of its kind to date, (2) discovering Shin's (mapping) hash function, the best hash method to date, and (3) verifying that there is no distinguishable difference between the distribution performance of one RGDI (relatively good and data independent) hash function and that of another when surveying hash functions. In particular, I coined the term "phenomenon of relatively good (RG) solutions" in reference to the verification in the survey. Based on the first verification of the kind, I have come up with the hypothesis that the phenomenon of RG solutions is present in each group of polynomial time solutions for complex problems that basically require exponential time algorithms as solutions. With the important verification and discoveries mentioned above, I believe I have made the greatest contribution to Computer Science.

Please convey this letter to your school's Computer Science/Engineering faculties, Board of Trustees, Provost, Secretary-General, International Relations, Registrar, or anyone else whom it may concern. I openly invite any challenge from your academic community to criticize my work. If your school reaches any conclusions disputing my

findings, please provide your opinion to Professor Knuth or me. Thank you for your time.

Dr. Dong-Keun Shin

Date: May 28, 1997

Your Ref.: KHB/LAY/189SHIN

Our Ref.: S4/30-52L

Professor K. H. Bennett
Department of Computer Science
University of Durham
Science Laboratories
South Road, Durham DH1 3LE
United Kingdom

#### Dear Professor K. H. Bennett:

It's good to read that you respect Professor Knuth very much as many computer scientists do. I like Professor Knuth because there are not many people in this world who can analyze my work as good as he does.

I would hope that you read my articles objectively and didn't rely too much on Professor Knuth's fame to influence your judgement.

Sincerely.

Dr. Dong-Keun Shin

cc: President, University of Durham, UK
Chair, EECS Department, College of Engineering, U. C. Berkeley, CA 94720

> May 30, 1997 Our Ref. S5/3-4L

Director Hussein HJ. Ahmad Education Planning and Research Division for Secretary-General Ministry of Education Malaysia

Dear Director Hussein HJ. Ahmad:

Referring to your letter of April 22<sup>nd</sup>, 1997, thank you for the enclosed list. I already have sent my letter to most of the universities in the list except Universiti Putra Malaysia, Universiti Islam Antarabangsa, and Universiti Malaysia Sabah. I am sending my letter to them now. In the future, I will include more important people in my mailing list.

Sincerely.

Dr. Shin

Faxes: 82-2-565-7907,82-342-718-9789

Y.Bhg. Dato' Prof. Dr. Syed Jalaludin bin Syed Salim
Vice Chancellor
Universiti Putra Malaysia
43400 Serdang
Date: May 30, 1997
Our Ref.: S5/3-4L1

## Dear Vice Chancellor:

Selangor Darul Ehsan

My recent correspondence with Professor Donald E. Knuth tells me that I need to ask your school's opinion about my research in Computer Science. I have attached our correspondence so that your Science and Engineering faculties may criticize and evaluate my ideas. For further investigation on my research, please read A Collection of Research Processes for Genealogy and Proofs which were submitted to the chair of Electrical Engineering and Computer Sciences Department at the University of California, Berkeley in the USA. The papers that I sent to Professor Knuth are included in Section 17, Volume 2 of the collection. My most recent publication, "The Theory of Massive Cross-Referencing," has appeared in The Proceedings of the Eighth International Conference on Software Engineering and Knowledge Engineering. You will also find it in Volume 10 of the collection.

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Please convey this letter to your school's Computer Science/Engineering faculties, Board of Trustees, Provost, Secretary-General, International Relations, Registrar, or anyone

else whom it may concern. I openly invite any challenge from your academic community to criticize my work. If your school reaches any conclusions disputing my findings, please provide your opinion to Professor Knuth or me. Thank you for your time.

Sincerely,

Dr. Dong-Keun Shin

May 30, 1997

Y.Bhg. Data' Dr. Abdul Hamid A. Abu Sulayman
Rektor
Universiti Islam Antarabangsa
Date: May 30, 1997
Jalan Universiti
Our Ref. S5/3-4L2
P.O.Box 70, Jalan Sultan, 46700 Petaling Jaya
Selangor Darul Ehsan

## Dear Rektor:

My recent correspondence with Professor Donald E. Knuth tells me that I need to ask your school's opinion about my research in Computer Science. I have attached our correspondence so that your Science and Engineering faculties may criticize and evaluate my ideas. For further investigation on my research, please read A Collection of Research Processes for Genealogy and Proofs which were submitted to the chair of Electrical Engineering and Computer Sciences Department at the University of California, Berkeley in the USA. The papers that I sent to Professor Knuth are included in Section 17, Volume 2 of the collection. My most recent publication, "The Theory of Massive Cross-Referencing," has appeared in The Proceedings of the Eighth International Conference on Software Engineering and Knowledge Engineering. You will also find it in Volume 10 of the collection.

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Please convey this letter to your school's Computer Science/Engineering faculties, Board

of Trustees, Provost, Secretary-General, International Relations, Registrar, or anyone else whom it may concern. I openly invite any challenge from your academic community to criticize my work. If your school reaches any conclusions disputing my findings, please provide your opinion to Professor Knuth or me. Thank you for your time.

Sincerely,

Dr. Dong-Keun Shin

Y.Bhg. Dato' Prof. Dr. Abu Hassan bin Othman

Vice Chancellor

Universiti Malaysia Sabah

Date: May 30, 1997

Our Ref. S5/3-4L2

Tingkat 9, Gaya Centre, Jalan Tuan Fuad Stephens Beg Berkunci 2073, 88999 Kota Kinabalu Sabah

# Dear Vice Chancellor:

My recent correspondence with Professor Donald E. Knuth tells me that I need to ask your school's opinion about my research in Computer Science. I have attached our correspondence so that your Science and Engineering faculties may criticize and evaluate my ideas. For further investigation on my research, please read A Collection of Research Processes for Genealogy and Proofs which were submitted to the chair of Electrical Engineering and Computer Sciences Department at the University of California, Berkeley in the USA. The papers that I sent to Professor Knuth are included in Section 17, Volume 2 of the collection. My most recent publication, "The Theory of Massive Cross-Referencing," has appeared in The Proceedings of the Eighth International Conference on Software Engineering and Knowledge Engineering. You will also find it in Volume 10 of the collection.

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Please convey this letter to your school's Computer Science/Engineering faculties, Board of Trustees, Provost, Secretary-General, International Relations, Registrar, or anyone

else whom it may concern. I openly invite any challenge from your academic community to criticize my work. If your school reaches any conclusions disputing my findings, please provide your opinion to Professor Knuth or me. Thank you for your time.

Sincerely,

Dr. Dong-Keun Shin

> Date: May 30, 1997 Our Ref.: S5/3-8L

President Whiddon
Office of the President
University of South Alabama
FCW 20
Mobile, Alabama 36688-0002
United States of America

# Dear President Whiddon:

I am enclosing Professor and Chairman David L. Feinstein's letter. I don't understand how he came to such a conclusion. May I ask him to talk about his reasons?

Sincerely,

Dr. Dong-Keun Shin

cc: Professor and Chairman

David L. Feinstein

Faxes: 82-2-565-7907,82-342-718-9789

Date: May 30, 1997 Our Ref.: S5/3-8L

President Whiddon
Office of the President
University of South Alabama
FCW 20
Mobile, Alabama 36688-0002
United States of America

Dear President Whiddon:

I am enclosing Professor and Chairman David L. Feinstein's letter. I don't understand how he came to such a conclusion. May I ask him to talk about his reasons?

Sincerely,

Dr. Dong-Keun Shin

cc: Professor and Chairman David L. Feinstein
Chair, EECS Department, College of Engineering, U. C. Berkeley, CA 94720

Faxes: 82-2-565-7907,82-342-718-9789

May 30, 1997 Ref. S5/3-8L

Professor David L. Feinstein, Chairman School of Computer and Information Sciences University of South Alabama FCW 20 Mobile, Alabama 36688-0002 United States of America

Dear Professor Feinstein:

May I hear more specific reasons why you concurred with Professor Knuth's review? Thank you for your time.

Sincerely,

Dr. Dong-Keun Shin

cc: President Whiddon

> May 30, 1997 Ref. S5/3-24L

President
Office of the President
The University of Calgary
2500 University Drive N.W., Calgary
Alberta, Canada T2N 1N4

#### Dear President:

I have received a response from Professor Ken Loose, Head of the Department of Computer Science in your school. I would like to personally thank him and his colleagues for having a discussion and providing a suggestion. I will definitely take it into consideration.

Sincerely,

Dr. Dong-Keun Shin

cc: Professor Ken Loose, The University of Calgary
Chair, EECS Department, College of Engineering, U. C. Berkeley, CA 94720

> May 30, 1997 Ref. S5/3-30L

Professor Ah Chung Tsoi Faculty of Informatics University of Wollongong NSW 2522 Australia

Dear Professor A. C. Tsoi:

You can also find my papers in the following references:

Shin, D. K. A Comparative Study of Hash Functions for a New Hash-Based Relational Join Algorithm. Pub. No. 91-23423, Ann Arbor: UMI Dissertation Service. (Tel: 313-761-4700 Ext. 2224, Fax:313-761-4700; Ask Ms. Lisa Maier or someone at UMI.)

Shin, D. K. and Meltzer, A. C. "A New Join Algorithm." ACM SIGMOD RECORD, Vol. 23, No. 4, Dec. 1994: 13-18.

Shin, D. K. "The Theory of Massive Cross-Referencing." Proceedings of the 8<sup>th</sup> International Conference on Software Engineering and Knowledge Engineering. Jun. 1996: 545-552. (You may get a copy from Knowledge Systems Institute, 3420 Main St. Skokie, IL 60076, USA. Tel: 1-847-679-3135, E-mail: office@ksi.edu)

Man Shiz

Sincerely,

Dr. Dong-Keun Shin

cc: Vice-Chancellor Gerard Sutton
Chair, EECS Department, College of Engineering, U. C. Berkeley, CA 94720

> May 30, 1997 Ref. S5/3-31L

Vice Chancellor Gerard Sutton Office of the Vice Chancellor University of Wollongong NSW 2522 Australia

Dear Vice-Chancellor Gerard Sutton:

Please help Professor Tsoi read my papers and investigate my collection of research processes.

Sincerely,

Dr. Dong-Keun Shin

> May 30, 1997 Ref. S5/3-31L

Harold Thimbleby, Professor of Computing Research Faculty of Technology, School of Computing Science Middlesex University Bounds Green Road, London N11 2NQ United Kingdom

Dear Professor Thimbleby:

Please evaluate my ideas regarding hash functions. I would like to know whether my hash function is the best in a specific computing environment or whether it's the best in general (in most cases). I also want to hear your opinion about my survey of hash functions and the phenomenon of RG solutions.

Sincerely,

Dr. Dong-Keun Shin

cc: President, Middlesex University, London Chair, EECS Department, College of Engineering, U. C. Berkeley, CA 94720

> May 30, 1997 Ref. S5/3-33L

Professor Shangmin Cao Department of Mathematics Liaocheng Teachers Institute Liaocheng (Shandong Province) China

Dear Professor Shangmin Cao:

Thank you for your letter of April 22, 1997. I hope the reference I have provided below is useful.

Shin, D. K. A Comparative Study of Hash Functions for a New Hash-Based Relational Join Algorithm. Pub. No. 91-23423, Ann Arbor: UMI Dissertation Service. (Tel: 313-761-4700 Ext. 2224, Fax:313-761-4700; Ask Ms. Lisa Maier or someone at UMI.)

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Shin, D. K. "The Theory of Massive Cross-Referencing." Proceedings of the 8<sup>th</sup> International Conference on Software Engineering and Knowledge Engineering. Jun. 1996: 545-552. (You may get a copy from Knowledge Systems Institute, 3420 Main St. Skokie, IL 60076, USA. Tel: 1-847-679-3135, E-mail: office@ksi.edu)

If you need more help, please let me know.

Sincerely,

Dr. Dong-Keun Shin

cc: President, Liaocheng Teachers Institute
Chair, EECS Department, College of Engineering, U. C. Berkeley, CA 94720

Faxes: 82-2-565-7907,82-342-718-9789

May 30, 1997 Ref. S5/3-38L

Professor Wei Zhang Dept. of Comput. Liaoning University, 110036 P. R. China

Dear Professor Wei Zhang:

The following reference may help you to understand my ideas:

Shin, D. K. A Comparative Study of Hash Functions for a New Hash-Based Relational Join Algorithm. Pub. No. 91-23423, Ann Arbor: UMI Dissertation Service. (Tel: 313-761-4700 Ext. 2224, Fax:313-761-4700; Ask Ms. Lisa Maier or someone at UMI.)

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If you need more help, please let me know.

Sincerely,

Dr. Dong-Keun Shin

cc: President, Liaoning University
Chair, EECS Department, College of Engineering, U. C. Berkeley, CA 94720

Faxes: 82-2-565-7907,82-342-718-9789

May 30, 1997 Ref. S5/3-39L

Professor Hong Zhu
Department of Computer Science
Fudan University
Shanghai 200433
People's Republic of China

# Dear Professor Hong Zhu:

An author has to be extremely careful when he writes a mathematical expression for an algorithm. When one writes an algorithm, he may do so with an aid of a compiler (and debugger). His algorithm is not only more accurate but also more readable. Carter and Wegman explicitly explain their hash method in in their paper. That explanation is simpler and clearer than Proposition 8. When an author makes a mistake in expressing his idea but he still conveys what he is trying to say to readers, then his problem is usually not argued any further. I am thankful for your response, and any other response regarding my research will be appreciated.

Sincerely,

Dr. Dong-Keun Shin

cc: University President, Fudan University

Faxes: 82-2-565-7907,82-342-718-9789

May 30, 1997 Ref. S5/10-4L

Vice-Chancellor Darrel Ince
Dean, Faculty of Maths and Computing
Computing Department
The Open University
Walton Hall, Milton Keynes MK7 6AA
United Kingdom

Dear Vice-Chancellor Darrel Ince:

When one algorithm is suitable for parallel processing and others are not, people generally say that the algorithm is superior to others. In this case, people usually accept the superiority without performing empirical validations.

The approach appeared in Luis Trabb Pardo's thesis requires both hashing process and sorting process while my algorithm requires only hashing process that filters unnecessary data. Thus, the approach requires a more complicated software or hardware architecture while mine requires simple one. Analyzing inherent characteristics of parallel processing in both approaches, one will conclude that my algorithm is more suitable for parallel processing than the approach described in Trabb Pardo's thesis.

However, I am open to well-defined experimentation for a survey. Thank you for your suggestion.

Sincerely,

Dr. Dong-Keun Shin

> June 2, 1997 Ref. S5/10-10L

Vice-Chairman Naresh C. Mathur University Grants Commission Bahadurshah Zafar Marg New Delhi-110 002 India

Dear Vice-Chairman Mathur:

Referring to your letter dated April 11, 1997, thank you for sending my letters to the President of the Computer Society of India. I look forward to hearing from him soon.

Sincerely,

Dr. Dong-Keun Shin

cc: Chairman, University Grants Commission, India Chair, EECS Department, College of Engineering, U. C. Berkeley, CA 94720

> June 2, 1997 Ref. S5/10-10L

President S. Ramani,
Computer Society of India
National Council for Software Technology
Gulmohar Cross Road, No. 9, Juhu
Mumbai-400 049
India

## Dear President S. Ramani:

According to what Vice-Chairman Naresh C. Mathur at the University Grants Commission told me on April 11, 1997, you should have received my letters. If you need my help or have any questions, please let me know.

Sincerely,

Dr. Dong-Keun Shin

> June 2, 1997 Ref. S5/10/14L

Dean, The College of Engineering Montana State University-Bozeman Bozeman, MT 59717 United States of America

## Dear Dean:

My recent correspondence with Professor Donald E. Knuth tells me that I need to ask your school's opinion about my research in Computer Science. I have attached our correspondence so that your Science and Engineering faculties may criticize and evaluate my ideas. For further investigation on my research, please read A Collection of Research Processes for Genealogy and Proofs which were submitted to the chair of Electrical Engineering and Computer Sciences Department at the University of California, Berkeley in the USA. The papers that I sent to Professor Knuth are included in Section 17, Volume 2 of the collection. My most recent publication, "The Theory of Massive Cross-Referencing," has appeared in The Proceedings of the Eighth International Conference on Software Engineering and Knowledge Engineering. You will also find it in Volume 10 of the collection.

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community to criticize my work. If your school reaches any conclusions disputing my findings, please provide your opinion to Professor Knuth or me. Thank you for your time.

Sincerely,

Dr. Dong-Keun Shin

Faxes: 82-2-565-7907,82-342-718-9789

May 30, 1997 Ref. S5/10-6L

President Richard Atkinson Office of the President 300 Lakeside Drive, 22<sup>nd</sup> Floor Oakland, California 94612-3550 United States of America

## Dear President Atkinson:

I will send copies of all correspondences to Professor David A. Hodges at the University of California, Berkeley every couple of months. Eventually all correspondences will be included in A Collection of Research Processes for Genealogy and Proofs and submitted to the Chair of the EECS Department at U. C. Berkeley sometime this or next year. Thank you very much for your concern.

Dr. Dong-Keun Shin

Provost and Senior Vice President C. Judson King cc:

Senior Vice President Wayne Kennedy

Associate Vice President Lynn

Professor David A. Hodges, U. C. Berkeley

> May 30, 1997 Ref. S5/10-6L

Provost and Senior Vice President C. Judson King Office of the Provost and Senior Vice President 300 Lakeside Drive, 22<sup>nd</sup> Floor Oakland, California 94612-3550
United States of America

# Dear Vice President King:

I have already sent my letter to the Chancellors of the University of California when I sent my letters to you as well as to the presidents of about 4000 universities and colleges all over the world. I have received responses from more than 160 countries, and am waiting to hear more from the Chancellors and Computer Science faculties in the U. C. System. Thank you very much for your concern.

Sincerely,

Dr. Dong-Keun Shin

cc: President Richard Atkinson

Senior Vice President Wayne Kennedy

Associate Vice President Lynn

> June 2, 1997 Ref. S5/10-22L

Dr. Christoph Schneider Deutsche Forschungsgemeinschaft DFG, Kennedyallee 40, 53175 Bonn Germany

# Dear Dr. Christoph Schneider:

Receiving your letter of April 29, 1997, I was glad to receive your advice. I think your advice is very good in general; however, assuming that your society is looking for the greatest contributor in Computer Science and wishes him to make a great influence, your advice is not very beneficial. No one can actually acknowledge a person as the greatest contributor unless he claims to be so and openly invites any challenges for a competition. Perhaps his paper can be published in a referred scientific journal and subsequent discussions may follow, but this process will take too long for acknowledgment. may ask why this forthright challenging, which gives painful experience to some scientists, is necessary? The answer is that higher education demands it, and a great amount of influence is involved. Students do not want to waste their time learning ideas and theories reading through a million articles that have not been through the tunnel of tough competition and verification. Many scholars don't have to fight for their contributions but instead, just publish their papers. Reading their articles and evaluating them is then student's and researcher's job. This is a real problem. Before publishing an idea in a high esteemed journal, researchers should have to fight for their contributions and ask for a rank, then they should decide who should read their papers for acknowledgment. Thus, it is recommendable to a scholar to be insistent about his contribution and ask for a domain.

I am not accusing the head of your administration of automatically endorsing all scientists, but am just saying if he/she were to support this kind of competition. As a consequence, he would endorse a lot less but more qualified scientists. That would

improve your country's education and worldwide academia in general. Knowing that endorsement is an accurate reflection on each scholar's contribution in his or her field, scientists will be responsible and supportive in making endorsements useful for the betterment of your country's education.

Sincerely,

Dr. Dong-Keun Shin

cc: Federal President Roman Herzog

Federal Chancellor Helmut Kohl

> June 2, 1997 Ref. S5/10-44L

Dr J. W. Sanders
Tutorial Fellow in Computation
Lady Margaret Hall
Oxford OX2 6QA
United Kingdom

### Dear Dr Sanders:

Thank you for your letter of April 28, 1997. In your letter, you said that most computer scientists would probably agree that a decision about  $P \neq NP$  would mark a great contribution to our subject. Since I know about this open problem, I would say I both agree and disagree about what you're saying because no one has ever proved that every apparently exponential time complexity problem is included in the group of NP-complete problems. You asked me if my work bears upon the open problem of  $P \neq NP$ . My answer is "No", but I will prove  $P \neq NP$  sometime in the future simply by showing the phenomenon of RG solutions in an NP-complete problem. After I prove that there is a phenomenon of RG solutions in a group of polynomial algorithms for the problems that currently (or basically) require exponential time algorithms, I will be the one who has to prove  $P \neq NP$  using similar techniques which show the phenomenon of RG solutions in an NP-complete problem.

I hope no one uses this phenomenon in making a decision about  $P \neq NP$ . In solving the open problem, I request scientists to refrain from using five techniques that I used in steps for the verification: (1) refrain from using use words or similar words like "There is no distinguishable difference between performances of the group's polynomial time algorithms." and "relatively (or equally) good performance" such as the words I used to describe the phenomenon of RG solutions; (2) refrain from creating or showing the simplest polynomial algorithm that does not have any predictable fault; (3) refrain from experimenting the simplest one without any fault to show as good performance as other

relatively good solutions show; (4) refrain from creating the best (i.e., the most adequate in general) polynomial time algorithm using a well-defined set of criteria; (5) refrain from experimenting the best polynomial time algorithm and RG solutions to show that the best one has such RG (relatively good) performance that the best one does not outperform other RG solutions and no other currently accepted solution outperforms the best one. Despite this warning, I will be surprised if anyone proves  $P \neq NP$  in a different way.

Please respond again after you read my papers.

Sincerely,

Sincerely,

Sincerely,

Doctor

Dong-Keun Shin

cc:

Principal, Lady Margaret Hall, University of Oxford

Vice-Chancellor, University of Oxford

Vice-Chancellor, University of Cambridge

Chairperson, Department for Education and Science

Chairman, Committee of Vice-Chancellors and Principals of the Universities of the United Kingdom

Chairman, Higher Education Funding Council for England

Chairman, Standing Conference of Principals of University Sector Colleges

President, Association of University Teachers

Chairman, The British Council

Chairman, The Carnegie Trust for the Universities of Scotland

President, Society for Research into Higher Education

Chair, EECS Department, College of Engineering, U. C. Berkeley

Faxes: 82-2-565-7907,82-342-718-9789

Chair, Computer Science Department Washington University Campus Box 1134, One Brookings Drive St. Louis, Missouri 63130-4899 United States of America

June 2, 1997 Ref. S5/17-5L

## Dear Chair:

My recent correspondence with Professor Donald E. Knuth tells me that I need to ask your school's opinion about my research in Computer Science. I have attached our correspondence so that your Science and Engineering faculties may criticize and evaluate my ideas. For further investigation on my research, please read A Collection of Research Processes for Genealogy and Proofs which were submitted to the chair of Electrical Engineering and Computer Sciences Department at the University of California, Berkeley in the USA. The papers that I sent to Professor Knuth are included in Section 17, Volume 2 of the collection. My most recent publication, "The Theory of Massive Cross-Referencing," has appeared in The Proceedings of the Eighth International Conference on Software Engineering and Knowledge Engineering. You will also find it in Volume 10 of the collection.

My major accomplishments in Computer Science have been: (1) discovering Shin's massive cross-referencing (or Shin's join) algorithm, the best algorithm of its kind to date, (2) discovering Shin's (mapping) hash function, the best hash method to date, and (3) verifying that there is no distinguishable difference between the distribution performance of one RGDI (relatively good and data independent) hash function and that of another when surveying hash functions. In particular, I coined the term "phenomenon of relatively good (RG) solutions" in reference to the verification in the survey. Based on the first verification of the kind, I have come up with the hypothesis that the phenomenon of RG solutions is present in each group of polynomial time solutions for complex problems that basically require exponential time algorithms as solutions. With the important verification and discoveries mentioned above, I believe I have made the greatest contribution to Computer Science.

Please convey this letter to your school's Computer Science/Engineering faculties. I openly invite any challenge from your academic community to criticize my work. If

your school reaches any conclusions disputing my findings, please provide your opinion to Professor Knuth or me. Thank you for your time.

Sincerely,

Dr. Dong-Keun Shin

cc: Chancellor Mark S. Wrighton

Chair, EECS Department, College of Engineering, U. C. Berkeley, CA 94720

Faxes: 82-2-565-7907,82-342-718-9789

Professor P. K. Mahanti, Head Dept. of Computer Engg. Birla Institute of Technology Mesra - 835 215 (RANCHI) INDIA

June 2, 1997 Ref. S5/17-12L

Dear Professor Mahanti

Although I have a whole copy of A Collection of Research Processes for Genealogy and Proofs, I do not distribute copies to people because it is too costly. You may ask Professor Randy Katz, Chair of the EECS Department at U. C. Berkeley, Berkeley, CA 94720 for a copy of the collection. For the time being, you may read my papers in the following references:

Shin, D. K. A Comparative Study of Hash Functions for a New Hash-Based Relational Join Algorithm. Pub. No. 91-23423, Ann Arbor: UMI Dissertation Service. (Tel: 313-761-4700 Ext. 2224, Fax:313-761-4700; Ask Ms. Lisa Maier or someone at UMI.)

Shin, D. K. and Meltzer, A. C. "A New Join Algorithm." ACM SIGMOD RECORD, Vol. 23, No. 4, Dec. 1994: 13-18.

Shin, D. K. "The Theory of Massive Cross-Referencing." *Proceedings of the 8<sup>th</sup> International Conference on Software Engineering and Knowledge Engineering.* Jun. 1996: 545-552. (You may get a copy from Knowledge Systems Institute, 3420 Main St. Skokie, IL 60076, USA. Tel: 1-847-679-3135, E-mail: office@ksi.edu)

If you still need my help, please let me know. Good luck.

Sincerely,

Dr. Dong-Keun Shin

cc: President, Birla Institute of Technology
Chair, EECS Department, College of Engineering, U. C. Berkeley, CA 94720

Faxes: 82-2-565-7907,82-342-718-9789

Director Adolfo Guzman
National Institute of Technology
National Computer Center
P.O.Box 75-476 Mexico 07738, City
Mexico

June 2, 1997 Ref. S5/17-13L

Dear Director Adolfo Guzman:

I do not provide a copy of A Collection of Research Processes for Genealogy and Proofs to anyone because it is too expensive for me to send. Perhaps the following reference may be helpful for now:

Shin, D. K. A Comparative Study of Hash Functions for a New Hash-Based Relational Join Algorithm. Pub. No. 91-23423, Ann Arbor: UMI Dissertation Service. (Tel: 313-761-4700 Ext. 2224, Fax:313-761-4700; Ask Ms. Lisa Maier or someone at UMI.)

Shin, D. K. and Meltzer, A. C. "A New Join Algorithm." ACM SIGMOD RECORD, Vol. 23, No. 4, Dec. 1994: 13-18.

Shin, D. K. "The Theory of Massive Cross-Referencing." Proceedings of the 8th International Conference on Software Engineering and Knowledge Engineering. Jun. 1996: 545-552. (You may get a copy from Knowledge Systems Institute, 3420 Main St. Skokie, IL 60076, USA. Tel: 1-847-679-3135, E-mail: office@ksi.edu)

Since I keep a copy of the collection, I will send some necessary parts to you if you cannot get a hold of these papers.

Sincerely,

Sincerely,

Sincerely,

Dr. Dong-Keun Shin

cc: President, National Institute of Technology Chair, EECS Department, College of Engineering, U. C. Berkeley, CA 94720

> June 3, 1997 Ref. S5/17-19L

Chancellor Robert C. Khayat Office of the Chancellor University, MS 38677 United States of America

# Dear Chancellor Khayat:

Thank you for your letter dated May 1, 1997. I will definitely consider submitting my papers to the Journal of the ACM and Software Concepts and Tools. However, I will talk about the submission with my supporters. I will let you know when I submit my papers to the above journals.

Sincerely,

Dr. Dong-Keun Shin

cc: Chair, EECS Department, College of Engineering, U. C. Berkeley, CA 94720

> June 3, 1997 Ref. S5/17-23L

President John R. Brazil Office of the President Bradley University Peoria, Illinois 61625

#### Dear President Brazil:

I was surprised at the letter from the CS&IS department, dated April 29, 1997. Scientists can claim their contributions to their territories before publishing their ideas. By doing so, they stimulate peers to scrutinize their work. My papers will be published after thorough examination by numerous academic communities all over the world. The faculties at your CS&IS department seem to rely more on the reputation of conference and journal reputation than their own evaluations. I wish that they would become actively involved in scrutinizing my work before my ideas are published.

Sincerely,

Dr. Dong-Keun Shin

cc: Chair, EECS Department, College of Engineering, U. C. Berkeley, CA 94720

Faxes: 82-2-565-7907,82-342-718-9789

June 3, 1997 Ref. S5/17-27L

Executive Director T. Michael Elliott IEEE Computer Society 1730 Massachusetts Avenue, N.W. Washington, DC 20036-1992 United States of America

# Dear Executive Director Elliott:

Thank you for your letter, dated May 9, 1997. Although you cannot provide any comment regarding my research in Computer Science at this time, I would like to submit my papers to one of your referred journals sometime soon. Thank you again for your suggestion.

Sincerely,

Dr. Dong-Keun Shin

cc: Daniel J. Senese

Chair, EECS Department, College of Engineering, U. C. Berkeley, CA 94720

Minister Juris Celminš Ministry of Education and Science Valnu Iela 2 Riga, LV 1050, Latvija Republic of Latvia

June 3, 1997 Ref. S5/17-29L

Dear Minister Juris Celminš:

According to your letter of May 3, 1997, you had difficulty in getting eleven volumes of A Collection of Research Processes for Genealogy and Proofs from the EECS Department at the University of California, Berkeley. If you ask EECS Department Chair Randy Katz about my collection, someone at the department will help you. Although I have a full copy of the collection, I will provide the copy when the EECS Department at Berkeley cannot provide it anymore. For the time being, Latvian experts may read my papers in the following references.

Shin, D. K. A Comparative Study of Hash Functions for a New Hash-Based Relational Join Algorithm. Pub. No. 91-23423, Ann Arbor: UMI Dissertation Service. (Tel: 313-761-4700 Ext. 2224, Fax:313-761-4700; Ask Ms. Lisa Maier or someone at UMI.)

Shin, D. K. and Meltzer, A. C. "A New Join Algorithm." ACM SIGMOD RECORD, Vol. 23, No. 4, Dec. 1994: 13-18.

Shin, D. K. "The Theory of Massive Cross-Referencing." Proceedings of the 8<sup>th</sup> International Conference on Software Engineering and Knowledge Engineering. Jun. 1996: 545-552. (You may get a copy from Knowledge Systems Institute, 3420 Main St. Skokie, IL 60076, USA. Tel: 1-847-679-3135, E-mail: office@ksi.edu)

I really appreciate your interest and concern.

Sincerely,

Dr. Dong-Keun Shin

cc: Chair, EECS Department, College of Engineering, U. C. Berkeley, CA 94720

> June 3, 1997 Ref. S5/17-34L

Professor Arne Halaas
Faculty of Physics, Informatics and Mathematics
Department of Computer and Information Science
Norwegian University of Science and Technology
Gløshaugen, N-7034 Trondheim
Norway

#### Dear Professor Halaas:

Reading your letter, I felt that you are a knowledgeable scholar who understands my ideas and theories well. I would like to ask you to read my papers and provide me with more constructive suggestions. Thank you for your interest.

Sincerely,

Dr. Dong-Keun Shin

cc: Rector, Norwegian University of Science and Technology
Chair, EECS Department, College of Engineering, U. C. Berkeley, CA 94720

Faxes: 82-2-565-7907,82-342-718-9789

Professor Francis Chin Head of Computer Science The University of Hong Kong Pokfulam Road Hong Kong

June 3, 1997 Ref. S5-6F

Dear Professor Chin:

Mrs. A. Lung introduced me to you for an evaluation on my research in Computer Science. You must have received my letter and correspondence that I sent to Education Department in Hong Kong. If you haven't, please let me or Mrs. A. Lung know. Eleven volumes of A Collection of Research Processes for Genealogy and Proofs have been submitted to the Chair of the EECS Department at U. C. Berkeley, CA 94720. However, you can start reading my papers in the following references:

Shin, D. K. A Comparative Study of Hash Functions for a New Hash-Based Relational Join Algorithm. Pub. No. 91-23423, Ann Arbor: UMI Dissertation Service. (Tel: 313-761-4700 Ext. 2224, Fax:313-761-4700; Ask Ms. Lisa Maier or someone at UMI.)

Shin, D. K. and Meltzer, A. C. "A New Join Algorithm." ACM SIGMOD RECORD, Vol. 23, No. 4, Dec. 1994: 13-18.

Shin, D. K. "The Theory of Massive Cross-Referencing." Proceedings of the 8<sup>th</sup> International Conference on Software Engineering and Knowledge Engineering. Jun. 1996: 545-552. (You may get a copy from Knowledge Systems Institute, 3420 Main St. Skokie, IL 60076, USA. Tel: 1-847-679-3135, E-mail: office@ksi.edu)

If you have any question or help, please let me know.

Sincerely,

Dr. Dong-Keun Shin

cc: Mrs. A. Lung, Director of Education
Chair, EECS Department, College of Engineering, U. C. Berkeley, CA 94720

July 28, 1997

Ref: S6/18-12L

Professor Ir. Drs. Khoe Yao Tung Electronics Eng. Dept. Universitas Kristen Krida Wacana Jl. Tanjung Duren Raya no.4 Jakarta Barat 11470 Indonesia

Dear Professor Ir. Drs. Kheo Yao Tung:

Thank you for your letter, dated May 27, 1997. When talking about an input key, people generally think of a string of characters. If the string includes more than one item in a key, people may consider those as a composite key which may be still represented in a string of characters. Thus, it does not matter how the input key is composed of because people just consider an input string of characters as a key or a composite key for a hash function. If you have a question regarding my opinion in hash functions, please let me know. I want to read your paper when it is ready.

Sincerely,

Dr. Dong-Keun Shin

cc: Rector, Krida Wacana Christian University

Chair, EECS Depatment, College of Engineering, U. C. Berkeley, U. S. A.

July 28, 1997

Ref: S6/30-1F

Professor Renzo Sprugnoil Dipartmento di Sistemi e Informatica Via Lombroso 6/17 50134 FIRENZE Italy

Dear Professor Renzo Sprugnoil:

I am enclosing a paper which I sent to Professor Donald E. Knuth for a review. If you need more help regarding my survey of hash functions, please do not hesitate to contact me. Thank you for your interest.

Sincerely,

Dr. Dong-Keun Shin

cc: Chair, EECS Department, College of Engineering, U. C. Berkeley, U. S. A.