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Personal:

- Born July 5, 1936, Caldwell, New Jersey
- U.S. Citizenship
- Married, two grown children

Education:

- B.A., 1958, Carleton College (in Mathematics)
- Ph.D., 1961, Princeton University (in Mathematics)
Thesis: "Three Person Cooperative Games without Side Payments"

Employment:

- June 1961 to September 1978 - General Electric Company
- September 1978 to August 2000 - University at Albany, State University of New York
- September 2000 to present - Retired

Professional Societies:

- Association for Computing Machinery
- SIGACT

Honors:

- Turing Award - 1993
- ACM Fellow
- Promoted to "Distinguished Professor", 1994

Other:

- Editor of the SIAM Journal on Computing, 1972 to 1988
- Member-at-large, SIGACT Executive Committee, 1973 to 1975
- Visiting Professor, Hebrew University, Spring 1975
- Adjunct Professor, RPI, 1977 to 1978
- Visitor, Mathematical Science Research Institute, Fall 1985
- Chairman of Computer Science Department, University at Albany, January 1982 to August 1989

Turing Award Citation

To Juris Hartmanis and Richard E. Stearns, in recognition of their seminal joint research which established the foundations for the field of computational complexity theory. In their paper “On the Computational Complexity of Algorithms,” (Transactions of the American Mathematical Society, vol. 117, No. 5, May, 1965, pp. 285-306) they provided a precise definition of the complexity measure defined by computation time on Turing machines and developed a theory of complexity classes. The paper sparked the imagination of many computer scientists and led to the establishment of complexity theory as a fundamental part of the discipline.

Books Published

1. Hartmanis, J. and Stearns, R.E., *Algebraic Structure Theory of Sequential Machines*, Prentice-Hall, 1966.
2. Lewis, P.M., Rosenkrantz, D.J. and Stearns, R.E., *Compiler Design Theory*, Addison-Wesley, 1976.
3. Aumann, Robert J. and Maschler, Michael B. with the collaboration of Stearns, Richard E., *Repeated Games with Incomplete Information* MIT Press, 1995
This book won the 1995 Lanchester Prize for the best contribution of the year to Operations Research.

Publications

1. Stearns, R.E., The Voting Problem, *Amer. Math. Monthly*, Nov. 1959.
2. Stearns, R.E., Hartmanis, J., On the State Assignment Problem for Sequential Machines II, *IRE Transactions on Electronic Computers*, EC-10, No. 4, December 1961, 593-603.
3. Hartmanis, J., Stearns, R.E., Some Dangers in State Reduction of Sequential Machines, *Information & Control*, Sept. 1962, vol. 5, no. 3, 252-260.
4. Hartmanis, J. and Stearns, R.E., A Study of Feedback and Errors in Sequential Machines, *IEEE Transactions on Electronic Computers*, EC-12, #3, June 1963.
5. Stearns, R.E. and Hartmanis, J., Regularity Preserving Modifications of Regular Expressions, *Information & Control*, vol. 6, no. 1, Sept. 1963, 55-69.
6. Stearns, R.E., Three-Person Cooperative Games Without Side Payments, *Annals of Math Studies* #52, Advances in Game Theory, Princeton U. Press, 1964.
7. Stearns, R.E., On the Axioms for a Cooperative Game Without Side Payments, *Proc. Amer. Math. Soc.*, vol. 6, #1, Feb. 1964, 82-86.
8. Hartmanis, J. and Stearns, R.E., Pair Algebra and Its Application to Automata Theory, *Information & Control*, vol. 7, #4, December 1964, 485-507. (Also presented in FOCS 5 (1964), 192-196.)
9. Hartmanis, J. and Stearns, R.E., On the Computational Complexity of Algorithms, *Trans. Am. Math. Soc.*, vol. 117, #5, May 1965, 285-306. (Also presented in FOCS 5 (1964), 82-90.)
10. Hartmanis, J., Lewis, P.M. and Stearns, R.E., Classification of Computations by Time and Memory Requirements, *Proc. of IFIP Congress*, 1965, 31-35.
11. Lewis, P.M., Stearns, R.E. and Hartmanis, J., Memory Bounds for Recognition of Context Free and Context Sensitive Languages, *Proc. 6th Annual Symp. on Switching Circuit Theory & Logical Design*, Oct. 1965.
12. Stearns, R.E., Hartmanis, J. and Lewis, P.M., Hierarchies of Memory Limited Computations, *Proc. 6th Annual Symp. on Switching Circuit Theory & Logical Design*, Oct. 1965.
13. Hartmanis, J. and Stearns, R.E., *Algebraic Structure Theory of Sequential Machines*, Prentice-Hall, 1966.
14. Hennie, F.C. and Stearns, R.E., Two-tape Simulation of Multitape Turing Machines, *Journal of ACM*, vol. 13, #4, Oct. 1966, 533-546.
15. Hartmanis, J. and Stearns, R.E., Sets of Numbers Defined by Finite Automata, *Am. Math. Monthly*, vol. 74, #5, May 1967, 539-542.

16. Stearns, R.E., A Regularity Test for Pushdown Machines, *Information & Control*, vol. 11, #1, Sept. 1967, 323-340.
17. Stearns, R.E., A Formal Information Concept for Games with Incomplete Information, *Models of Gradual Reduction of Arms*, vol. 11, US ACDA report ST-116, Sept. 1967, 405-434. (Appears as Chapter 3 in *Repeated Games with Incomplete Information* by Aumann and Maschler with the collaboration of Stearns, MIT Press, 1995)
18. Lewis, P.M. and Stearns, R.E., Syntax-Directed Transduction, *Journal of ACM*, vol. 15, #3, July 1968, 465-488. (Also presented in FOCS 7 (1966), 21-35.)
19. Aumann, A.I., Maschler, M., and Stearns, R.E., Repeated Games of Incomplete Information: An Approach to the Non-Zero-Sum Case, *The Indirect Measurement of Utility*, vol. 11, US ACDA Report ST-143, Nov. 1968, 117-216. (Appears as Chapter 5 in *Repeated Games with Incomplete Information* by Aumann and Maschler with the collaboration of Stearns, MIT Press, 1995)
20. Stearns, R.E. Convergent Transfer Schemes for N-Person Games, *Trans. Am. Math. Soc.*, vol. 134, #3, Dec. 1968, 449-459.
21. Stearns, R.E. and Lewis, P.M., Property Grammars and Table Machines, *Information & Control*, vol. 14, #6, June 1969, 524-549. (Also presented in FOCS 9 (1968), 106-119.)
22. Stearns, R.E. and Rosenkrantz, D.J., Table Machine Simulation, *Conference Record of 10th Annual Symp. on Switching & Automata Theory*, Oct. 1969, 118-128.
23. Hartmanis, J. and Stearns, R.E., Automata-Based Computational Complexity, *Information Sciences* 1, 1969, 173-184.
24. Foster, W.H., Gans, R., Stearns, E.I. and Stearns, R.E., Weights for Calculation of Tristimulus Values from Sixteen Reflectance Values, *Color Engineering*, vol. 8, #3, June 1970, 35-47.
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26. Stearns, R.E., Deterministic Top-Down Parsing, *Proc. 5th Annual Princeton Conf. on Inf. Sciences & Systems*, March 1971, 182-188.
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29. Stearns, R.E., Lewis, P.M. and Rosenkrantz, D.J., Concurrency Control for Database Systems, *Proc. 17th IEEE Annual Symp. on Foundations of Computer Science*, 1976.

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