CURRICULUM VITAE (*2006*)

Professor Dr. **Hung T. Nguyen**
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1. Personal data:
Citizen of the USA .

2. Education:

Bachelor of Science (Mathematics): University of Paris XI (France), 1967.

Master of Science (Probability): University of Paris VI (France), 1968.

Third Cycle Thesis (Probability): University of Paris VI (France), 1970.

Ph.D. (Probability and Information): University of Lille (France), 1975.

3. Academic positions (USA):

1975 - 1977: *Research Associate,* University of California, Berkeley

1977 - 1981: *Visiting Assistant Professor of Mathematics and Statistics,* University of Massachusetts, Amherst.

1981 - 1983: *Assistant Professor of Mathematical Sciences,* New Mexico State University, Las Cruces.

1983 - 1988: *Associate Professor of Mathematical Sciences,* New Mexico State University, Las Cruces.

1988 - present: *Professor of Mathematical Sciences,* New Mexico State University, Las Cruces.

4. Visiting positions:

Visiting Researcher (Summer 1979): LAAS/CNRS, Toulouse/France.

Fulbright Researcher (Winter 1987): University of Palma de Mallorca/Spain.

Senior fellow (Summers 1990, 1992, 1995, 1997, 1998, 1999): ASEE Summer Faculty Research Program, San Diego, California.

Visiting Professor: Free University of Brussels/Belgium (Summer 1991); Tokyo Institute of Technology/Japan (1992-1993, on the *LIFE Chair of Fuzzy*

Theory) ; LAFORIA, University of Paris VI/France (Summer 1994) ; University of Perugia/Italy (Summer 1996) ; The Chinese University of Hong Kong/Hong Kong (Winter 1997).

Sabbatical leave: Department of Statistics, Harvard University (Fall 1987) ; University of Southern California, Los Angeles (Spring 1995), City University of London, United Kingdom (Fall 2001).

Awards and Recognition :

*Life Chair of Fuzzy Theory : T*okyo Institute of Technology, Japan (1992-93).

Westhafer Award for Excellence in Research, New Mexico State University (2000).

Distinguished Lukacs Professorship of Statistics, Bowling Green State University, Ohio (Spring 2002).

Distinguished Faculty Fellow (Summers 2002 and 2003) : ASEE Summer Faculty Research Program, San Diego, California.

5. Professional activities:

** Member of:*

The Institute of Mathematical Statistics,

The North American Fuzzy Information Processing Society.

** Associate Editor of the following Journals:*

International Journal of Approximate Reasoning (North Holland),

International Journal of Fuzzy and Intelligent Systems (John Wiley),

International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems (World Scientific),

International Journal of Fuzzy Sets and Systems (North Holland).

6. Teaching :

(i) Probability theory courses (undergraduate and graduate)

(ii) Statistics courses (for mathematics major, engineering, business and economics)

(iii) Decision theory courses (statistical decision theory and game theory)

7. Research interests: *Probability and Statistics with Applications:*

(i) *Mathematical Statistics:* Statistics of coarse data.

(ii) *Probability Theory:* Random sets and related stochastic processes.

(iii) *Intelligent Systems :* Fuzzy logics and intelligent data analysis.

8. Publications:

A. Books:

[1] *Uncertainty Models for Knowledge-Based Systems* (1985), co-authored with I.R. Goodman. North Holland.

[2] *Fundamentals of Mathematical Statistics, Volume I: Probability for Statistics* (1989), co-authored with G.S. Rogers. Springer-Verlag University Text Book Series.

[3] *Fundamentals of Mathematical Statistics, Volume II: Statistical Inference* (1989). co-authored with G.S. Rogers. Springer-Verlag University Text Book Series.

[4] *Conditioning Logic in Expert Systems* (1991), co-Editor. North Holland.

[5] *Conditioning Inference and Logic for Intelligent Systems: A Theory of Measure-free Conditioning* (1991), co-authored with I.R. Goodman and E.A. Walker. North Holland.

[6] *A Course in Stochastic Processes: Stochastic Models and Statistical Inference* (1996) co-authored with D. Bosq. Kluwer Academic.

[7] *Random Sets: Theory and Applications* (1997), co-Editor. Springer - Verlag.

[8] *Mathematics of Data Fusion* (1997), co-authored with I.R. Goodman and R. Mahler. Kluwer Academic.

[9] *Applications of Continuous Mathematics to Computer Science* (1997), co-authored with V. Kreinovich. Kluwer Academic.

[10] *A First Course in Fuzzy Logic* (2006, Third edition), co-authored with E. Walker, Chapman and Hall/CRC.

[11] *Fuzzy Mathematics and Statistical Applications* (2000), co-authored with Berlin Wu. Taipei, Taiwan.

[12] *A First Course in Fuzzy and Neural Control* (2002), co-authored with R. Prasad, C. and E. Walker, Chpaman and Hall/CRC,.

[13] *A First Course in Probability and Statistics* (Two volumes), co-authored with T. Wang. To appear 2006, Tsinghua /Springer.

[14] *An Introduction to Random Sets* (2006), Chapman and Hall/CRC.

[15] *Fundamemtals of Statistics with Fuzzy Data (2006)*, co-authored with Berlin Wu, Springer-Verlag.

B. Papers:

[1] Sur les mesures d'information de type Inf. (1974). In *Lectures Notes in Mathematics*, #398, Springer-Verlag, 62-75.

[2] Estimation de la densite' d'un processus de Markov a temps continu (1977). *Comptes Rendus. Acad. Sci. Paris,* A-284, 1397-1400.

[3] Sur l'estimation dans les processus de Markov (1978). *Comptes Rendus Acad.Sci.Paris,* A-287, 1129-1132.

[4] On random sets and belief functions (1978). *J.Math.Anal. and Appl.*, (65), 531-542.

[5] Loi des grands nombres pour les martingales et applications a la statistique (1979)/ with T.D.Pham. *Comptes Rendus Acad.Sci.Paris*, A-288, 303-305.

[6] Density estimation in a continuous-time, stationary Markov process (1979). *Annals of Statistics*, 7(2), 341-348.

[7] Sur l'utilisation du temps local en statistique des processus (1980)/ with T.D.Pham. *Comptes Rendus Acad.Sci.Paris*, A-290, 165-168.

[8] Asymptotic normality of recursive density estimators in Markov processes (1981). *Pub.Inst.Statist.Univ.Paris*, 73-79.

[9] Recursive estimation in diffusion model (1981)/ with G.Banon. *SIAM J.Control and Optimization*, 19(5), 676-685.

[10] Identification of non-stationary diffusion model by the method of sieves (1982)/ with T.D.Pham. *SIAM J.Control and Optimization*, 20(5), 603-611.

[11] On the law of large numbers for continuous-time martingales and applications to statistics (1982)/ with T.D.Pham. *J.Stochastica*, 6(1), 5-23.

[12] Recursive non-parametric estimation in stationary Markov processes (1984). *Pub.Inst.Statist.Univ.Paris*, 65-84.

[13] Estimation in change-point hazard rate models (1984)/ with G.S.Rogers and E.A.Walker. *Biometrika*, 71(2), 299-304.

[14] Simulation studies of recursive estimators of the density and the drift term for diffusion processes (1984)/ with G.Banon. *Matematica Aplicade e Computacional*, 3(1), 65-92.

[15] On modeling of linguistic information using random sets (1984). *J. Information Sciences*, (34), 265-274.

[16] On point process sampling in continuous-time models (1985). *Pub.Inst. Statist.Univ.Paris*, 73-95.

[17] Delayed exponential models in survival analysis (1985)/ with G.S.Rogers and E.A.Walker. *Pub.Inst.Statist.Univ.Paris*, 59-85.

[18] On the modeling of expert knowledge and admissibility of uncertainty measures (1985). *J.Mathematical Modeling*, (8), 222-226.

[19] Nearest neighbor density estimation under serial dependence (1988)/ with T.L.Tran. *Pub.Inst.Statist.Univ.Paris*, (1), 65-84.

[20] Strong consistency of maximum likelihood estimator in a change-point hazard rate model (1990)/ with T.D.Pham. *J. Statistics*, 2(2), 203-216.

[21] On the scoring approach to admissibility of uncertainty measures in expert systems (1991)/ with I.R.Goodman and G.S.Rogers. *J.Math.Anal.and Appl.*, 159(2), 550-594.

[22] A random set formalism for evidential reasoning (1991)/ with K.Hestir and G.S.Rogers. In *Conditional Inference in Expert Systems* (I.R.Goodman et al, Eds)., North Holland, 309-344.

[23] Intervals in Boolean rings: Approximation and Logic (1992). *J. Foundations of Computing and Decision Sciences*, 17(3), 131-138.

[24] Bootstrapping the change-point in a hazard rate model (1993)/ with T.D.Pham. *J. Inst. Statist. Math.*, 45(2), 331-340.

[25] On decision-making using belief functions (1994)/ with E.A.Walker. In *Advances in The Dempster-Shafer Theory of Evidence* (R.Yager et al, Eds)., J.Wiley, 311-330.

[26] On modeling of it-then rules for probabilistic inference (1994)/ with I.R.Goodman. *J. Intelligent Systems*, (9), 411- 418.

[27] A history and introduction to the algebra of conditional events and probability logic (1994)/ with E.A.Walker. *IEEE Transactions of Man,Systems and Cybernetics*, 24(2), 1671-1675.

[28] Some mathematical tools for decision-making under partial knowledge (1995). Invited paper.In *Mathematical Models for Handling Partial Knowledge in Artificial Intelligence* (G.Coletti et al, Eds)., Plenum Press, 129-156.

[29] Maximum entropy method in expert systems and intelligent control: new possibilities and limitations (1996)/ with V.Kreinovich and E.A.Walker. In *Maximum Entropy and Bayesian Methods* (K.M.Hanson and R.N.Silver, Eds)., Kluwer Academic, 93-100.

[30] Kolmogorov's theorem and its impact on soft computing (1997)/ with V.Kreinovich. In *The Ordered Weighted Averaging Operators* (R.Yager and J.Kacprzyk, Eds)., Kluwer Academic, 3-17.

[31] How to divide a territory? A new simple differential formalism for optimization of set-functions (with V.Kreinovich). *Intern. J.of Intelligent Systems*, vol 14, 223-251 (1999).

[32] A negative version of Choquet theorem for polish spaces (1998) (with N.Nguyen). *East-West Journal of Mathematics*, vol1, no1, 61-71.

[33] Chu spaces : A new approach to diagnostic information fusion.(1999) (with V. Kreinovich and B. Wu). *Proceedings of The Second International Conference on Information Fusion*, Volume I, 323-330, IEEE Press.

[34] Some mathematical structures for computational information (2000), *J. Information Sciences,* 128, 67-89.

[35] Gaussian processes and martingales for fuzzy-valued random variables with continuous parameter (2001)/ with S.Li and Y.Ogura, *J. Information Sciences,* 133, 7-21.

[36] Fuzziness and randomness (2002)/ with I.R. Goodman, in *Statistical Modeling, Analysis and Management of Fuzzy Data* (C. Bertoluzza et al, Eds.), 3-21, Physica-Verlag.

[37] Deduction from conditional knowledge (2003), with D. Bamber and I. R. Goodman. *Soft Computing, Vol 8, No 4, 247-255.*

1. [38] Random sets and large deviation principle as a foundation for possibility measures (2003), with B. Bouchon-Meunier. *Soft Computing, Vol 8, No 1, 61-70.*

   [39] Which truth values in fuzzy logics are definable? (2003), with V. Kreinovich and A. Di Nola. *International Journal of Intelligent Systems*, Vol. 10, No. 10, 1057-1064.

   [40] Choquet weak convergenge of capacity functionals of random sets (2004). In *Soft Methodology and Random Information Systems* (Miguel Lopez-Diaz et al., Editors), Springer-Verlag, 19-31.

   [41] On statistical Inference with random sets (2004), with Ding Feng. In *Soft Methodology and Random Information Systems* (Miguel Lopez-Diaz et al., Editors), Springer-Verlag, 77-84.

   [42] Survey sampling revisited and coarse data analysis (2004), Invited paper, *Thai Statistician Journal, vol 2,* 1-19.

   [43] Fuzzy and Random sets (2005), *Fuzzy Sets and Systems* (156), 349-356.

   [45] Robust reasoning with rules that have exceptions (2005),with D. Bamber and I.R. Goodman, *Annals of Mathematics and Articifial Intelligence* (45), 83-171.

   [46] On modeling perception-based information for intelligent technology and statistics (2005), *J.Taiwan Intelligent Technologies and Applied Statistics* 3(2), 25-43.