

## Curriculum Vitae

### Su-Yun Huang

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### Education

- Ph.D. (1990), Department of Statistics, Purdue University, U.S.A.  
Advisor: William J. Studden.  
Thesis: Density Estimation by Spline Projection Kernels.
- M.S. (1985), Department of Mathematics, National Taiwan University.
- B.S. (1983), Department of Mathematics, National Taiwan University.

### Professional Experiences

- Associate Research Fellow, Institute of Statistical Science, Academia Sinica, Jan., 1997 – present.
- Assistant Research Fellow, Institute of Statistical Science, Academia Sinica, Aug., 1993 – Jan. 1997.
- Assistant Professor, Department of Mathematics, Wayne State University, U.S.A., Aug., 1990 – July, 1993.

### Research Interests

- Nonparametric function estimation, wavelet methods, spline smoothing.
- Bayesian and empirical Bayesian inference, Bayesian computation.
- Statistical learning theory.
- Statistical applications on epidemic studies.
- Statistical applications on educational and psychological fields.

## **Academic and Administrative Services**

- Library commissioner (07/1997 – 06/1998).
- Colloquium chair (07/2000 – 12/2000).
- Academic councillor, Chinese Statistical Association (01/2000 – 12/2001).
- Local committee for “The 2002 Taipei International Statistical Symposium and Bernoulli Society EAPR Conference”.
- Statistica Sinica managing editor (08/2002 – present).
- Journal reviews: Bulletin, Institute of Mathematics, Academia Sinica; Communications in Statistics–Theory and Methods; Computational Statistics; J. American Statistical Association; J. Chinese Statistical Association; J. Data Science; J. Multivariate Analysis; J. National Taiwan Normal University; J. Nonparametric Statistics; J. Statistical Planning and Inference; Proceedings, National Science Council, A: Physical Science and Engineering; Soochow J. Mathematics; Southeast Asian Bulletin of Mathematics; Statistica Sinica; Statistics and Decisions; Statistics and Probability Letters.
- Grant proposal and research award review for National Science Council of ROC and grant proposal review for Natural Sciences and Engineering Research Council of Canada.
- PhD thesis review for Istituto per Applicazioni della Matematica, CNR (National Research Council), Italy.
- Recruiting committee (07/1996 – 06/1997, 07/1998 – 06/2000).
- Deputy director (08/1999 – 07/2000).
- Executive committee (07/1996 – 06/1998, 07/2001 – present).
- Campus environment committee (01/2000 – present).

## **Honors**

- National Science Council research awards, 1995 – 2001.

## **Research Grants**

- National Science Council research grants, 1994 – present.

### Selected invited talks

- *Workshop on Splines and its Applications*. Institute of Mathematics, Academia Sinica, April 16–17, 1999. Title: Smoothing splines for statistical model.
- *Workshop on Wavelets and Multiresolution Analysis*. City University of Hong Kong, Nov. 29–Dec. 3, 1999. Title: Bayesian wavelet shrinkage.
- *Bernoulli Society EAPRC 2001 International Conference and Workshop on Recent Developments in Statistics and Its Applications*. Kuala Lumpur, Malaysia, June 26-28, 2001. Title: Wavelet shrinkage estimation via asymptotic BLUP.

### Publications

1. S.Y. Huang and W.J. Studden. Density estimation using spline projection kernels. *Communications in Statistics–Theory and Methods*, 22, 3263–3285, 1993.
2. S.Y. Huang. Averaged shifted spline projection kernel estimator: an effective bias reducing nonparametric density estimator. Technical report, Department of Mathematics, Wayne State University, U.S.A. Abstract in *Inst. Math. Statist. Bulletin*, 21, p.52, 1992.
3. S.Y. Huang and W.J. Studden. An equivalent kernel method for least square spline regression. *Statistics and Decisions*, supp. 3, 179–201, 1993.
4. S.Y. Huang. Empirical Bayes testing procedures in some nonexponential families using asymmetric Linex loss function. *J. Statistical Planning and Inference*, 46, 293–309, 1995.
5. S.Y. Huang. On the consistency of hierarchical Bayes estimators. *Statistics and Decisions*, 14, 295–305, 1996.
6. S.Y. Huang. Wavelet based empirical Bayes estimation for the uniform distribution. *Statistics and Probability Letters*, 32, 141–146, 1997. (CompuMathCI, SCI expanded)
7. S.Y. Huang and T. Liang. Empirical Bayes estimation of the truncation parameter with Linex loss. *Statistica Sinica*, 7, 755–769, 1997. (SCI)
8. S.Y. Huang. Density estimation by wavelet-based reproducing kernels. *Statistica Sinica*, 9, 137–151, 1999. (SCI)
9. Y. Chow and S.Y. Huang. A characterization of the uniform distribution via moments of  $n$ -fold convolution modulo one. *Sankhyā A*, 61, 148–151, 1999.
10. I-C. Huang and S.Y. Huang. Bernoulli numbers and polynomials via residues. *J. Number Theory*, 76, 178–193, 1999. (SCI)

11. S.Y. Huang and H.S. Lu. Bayesian wavelet shrinkage for nonparametric mixed-effects models. *Statistica Sinica*, 10, 1021–1040, 2000. (SCI)
12. S.Y. Huang and H.S. Lu. Extended Gauss-Markov theorem for nonparametric mixed-effects models. *J. Multivariate Analysis*, 76, 249-266, 2001. (SCI)
13. S.Y. Huang. On a Bayesian aspect for soft wavelet shrinkage estimation under an asymmetric linex loss. *Statistics and Probability Letters*, 56, 171-175, 2002. (CompuMathCI, SCI expanded)
14. S.Y. Huang and Z.D. Bai. Wavelets, Advanced. *Encyclopedia of Physical Science & Technology*, 3rd ed., 17, 753-771, Academic Press, 2002.
15. H.S. Lu., S.Y. Huang and F.J. Lin. Generalized cross-validation for wavelet shrinkage in nonparametric mixed-effects models. *J. Computational and Graphical Statistics*, 12, 714-730, 2003. (CompuMathCI, SCI expanded)
16. S.Y. Huang, C.K. Hsiao and C.W. Chang. Optimal volume-corrected Laplace-Metropolis method. *Ann. Inst. Statist. Math.*, 55, 655-670, 2003. (CompuMathCI, SCI expanded)
17. C.K. Hsiao, S.Y. Huang and C.W. Chang. Bayesian marginal inference via Candidate's formula. *Statistics and Computing*, 14, 59-66, 2004. (CompuMathCI, SCI expanded)
18. M.H. Lin, S.Y. Huang and Y.C. Chang. Kernel-based discriminant techniques for educational placement. *J. Educational & Behavioral Statistics*, to appear. (SSCI)
19. Y.J. Lee, H.Y. Lo and S.Y. Huang. Incremental Reduced Support Vector Machines. Manuscript.
20. S.Y. Huang and Y.J. Lee. Equivalence relations between support vector machines, sparse approximation and Bayesian regularization. Manuscript.