

Curriculum Vitae

ARNI S. R. SRINIVASA RAO

Dept of Mathematics and Statistics
Room 552, MacNaughton Building
University of Guelph,
Guelph ON Canada N1G 2W1

519-824 4120, Extn: 53409
519-837 0221 (Fax)
arnirao@uoguelph.ca
sraoarni@hotmail.com

“ Please note the change in contact address from 15 January 2006”

Mathematical Institute
24 - 29 St. Giles,
Oxford OX1 3LB
United Kingdom
E-mail: arni@maths.ox.ac.uk

Experience

2006 Feb - 2007 Feb.	: Academic Visitor, Mathematical Institute, University of Oxford
2004 October - 2006 Jan.	: Postdoctoral Fellow in Mathematics, University of Guelph.
2005 Sept - 2005 Dec	: Visiting member, Field's Institute , University of Toronto
2002 Aug - 2004 Sept.	: Young Scientist scheme in Mathematical Sciences (DST/SERC). Centre for Ecological Sciences, Indian Institute of Science , Bangalore.
2003 March - August	: Visiting postdoctoral position, Mathematical Institute University of Oxford .
2002 March- April	: Research Visit to Mathematical Institute, University of Oxford and Imperial College, London
1999 July - 2002 May	: Theoretical Statistics and Mathematics Unit, Indian Statistical Institute , Calcutta.
2000 July - Dec.	: Visiting researcher, Faculty of Medicine, Hiroshima University , Japan

Areas of Current Research: Limit theorems, Mathematical/Statistical biology and Mathematical Statistics.

Teaching experience: Finite mathematics (Winter 05) (Problem sessions only), Calculus (Summer 05) (full course), in Canada, Probability & Mathematical Biology in India.

Summer 2005 Teaching evaluations: **OVERALL EFFECTIVENESS AS A TEACHER: 3.9** OUT OF 5

Educational Qualifications

2000-Ph. D. IIPS, (formerly in Bombay Univ).

Moved to Indian Statistical Institute, Calcutta in early 1999.

1995-M. Sc Statistics. Andhra University, Visakhapatnam, India. (71.3 %, First Class, first topper with Distinction)

1992-B. Sc Mathematics, Physics and Statistics, MRA College, Andhra University, Vizianagaram, India (73.6 %, First class)

Services & Research consulting

Journal Refereeing: Bulletin of Mathematical Biology, Current Science, IMA Journal of Mathematics Applied to Medicine and Biology, Journal of Biosciences, Statistics in Medicine.

Consultant for the **World Bank** during 2002, 2003 to develop mathematical models to address key issues related to AIDS.

Selected Workshops & Talks during Summer/Fall 2005 and winter 2006

7. Partially hyperbolic dynamics, laminations, and Teichmüller flow Workshop, Jan 5-9, 2006, Field's Institute, Toronto. (Organizers Cttee: M. Lyubich, G. Forni, C. Pugh, M. Shub)
 6. Renormalization in dynamical systems Workshop, November 29 - December 3, Field's Institute, Toronto. (Organizers: H Koch, M Lyubich and M Yampolsky)
 5. Invited talk at AIMS/Phimac Mathematics Seminar, McMaster University, November 22.
 4. Workshop on Modelling in Oncology: Problems Challenges, Field's Institute, Toronto, October 5.
 3. Workshop on Percolation, SLE, and Related Topics. Sept. 20 - 24 Field's Institute, Toronto. (Organizers: I. Binder & S. Rhode)
 2. Discussion leader at Workshop on Mathematical Epidemiology, PIMS, Canada August 20-25. (Organizers: H Hethcote, S Levin and P van den Driessche)
 1. New Researcher's meeting, IMS, USA, 2-5, August.
- 2004- Summer School and Conference on Dynamical Systems, ICTP, Italy, July 19-August 6. (Organizers: M. Vianna & J-C Yoccoz)

Upcoming invited talks

- 2006 - 15 February, Department of Infectious disease epidemiology, Imperial College, London
2006 - 22 February, Department of Mathematics, University of Bath, UK.

Selected Awards / Fellowships / honors

- 2005 – Discussion Leader at workshop on **Mathematical epidemiology** at PIMS, Canada (Aug. 20-25)
- 2005 – Selected to give talk and participate at “ **New Researcher’ s Conference**” organized by **Institute of Mathematical Statistics, USA.**
- 2002 – ISCB Conference award for research paper, Dajon, France.
- 2002 – London Mathematical Society’ s grant to visit **Mathematical Institute, Oxford.**
- 2002 – Fellowship /Project Scheme for **Young Scientists in Mathematical Sciences** by Science & Engineering Research Council, Department of Science & Technology, Government of India. (INR 0.76 million)
- 2000 – **Heiwa Nakajima Foundation Award** to visit Hiroshima University (JPY 2 million).
- 1997 – University Grants Commission–**National Eligibility Test** for lectureships in India.
- 1995 – Gold Medal for 1st topper in M. Sc.
- 1992 – Rank holder for AUCET for M.Sc (8th/400)
- 1986 – Mathematics Olympiad in grade 9 (school level)

Grants

- 2005 – 400 \$CDN by **Field’s Institute, Toronto** to facilitate research visits.
- 2005 – 960 Euros by ESTMB to attend ECMTB conference in Dresden, Germany.
- 2005 – 250 \$ US by IMS to present talk at **New Researcher’s conference, USA.**
- 2004 – 400 Euros and 45000 INR to attend summer school & conference at ICTP, Italy
- 2002 – 760000 INR as a project grant under the scheme of **Young Scientists in Mathematical Sciences, Department of Science & Technology, New Delhi.** This grant includes fellowship.

Refereed publications (only SCI & / or MathSciNet are listed)

- 2006 – Rao A.S.R.S. A note on derivation of the generating function for the right truncated Rayleigh distribution *Accepted in **Applied Mathematics Letters.***
- 2006 – Rao A.S.R.S. Probabilities of therapeutic extinction of HIV. ***Applied Mathematics Letters** 19, 1:80-86.*
- 2005– Rao A.S.R.S and Kakehashi, M. Incubation time distribution in back – calculation applied to HIV/AIDS data in India. ***Mathematical Biosciences and Engineering, 2, 2: 263-277. (MR2144239)***

- 2005- Rao A.S.R.S. , Basu, S., Basu, A. and Ghosh, J.K. Parametric models for incubation distribution in presence of left and right censoring.
Accepted in *Indian Journal of Pure and Applied Mathematics*
- 2005- Rao A.S.R.S. On joint Weibull probability density functions.
Applied Mathematics Letters, 18, 11:1224-1227. (**MR2170877**)
- 2004 - Rao A.S.R.S. Limiting theorems on case reporting.
Applied Mathematics Letters, 17, 7: 855 - 859. (**MR2072846**)
- 2004 -Rao A.S.R.S and Kakehashi, M. A Combination of differential equations and convolution in predicting an epidemic. *Sadhana - Acad. Proc. Engg. Sc.*, 29, 3: 305-313.
- 2003 - Rao A.S.R.S. U type functions. *Bulletin of Informatics and Cybernetics*, 35, 1-2: 35-39.
(Formerly *Bulletin of Mathematical Statistics*) (**MR2060624 (2005d:26001)**)
- 2003 - Rao A.S.R.S and S. K. Hira. Evidence of shorter incubation period of HIV-1 in Mumbai, India. *International Journal of STD & AIDS*. (London), 14: 499 - 500.
- 2003 - Rao A.S.R.S. Can we obtain realistic HIV/AIDS estimates in India?
Journal of Biosciences. 28, 4: 367 - 9.
- 2003 - Rao A.S.R.S. Mathematical Modelling of AIDS Epidemic in India.
Current Science, 84, 9: 1192 - 7.
- 1999 - S. K. Hira, Rao A.S.R.S. and D. J. Thanekar. Evidence of AIDS related mortality in Mumbai, India. *The Lancet*, 354, 9185:1175-6

Non-SCI/MathSciNet publications, Technical reports

- 2002 - Lahiri, S, Rao, A.S.R.S. and S. Srinivasan.
The role of Age-specific growth rates on population ageing in some developed and developing countries. *Demography India*
- 2004 - Kakehashi, M and Rao, A.S.R.S.
Mathematical and statistical approaches to risk management for the prevention of HIV/AIDS and other infectious diseases. *Journal of Medical Safety*

- 2001 - **Rao A.S.R.S**
A Methodology to Estimate Incubation Distribution of AIDS in
Delayed Surveillance and Censored data.
ISCEP, The Biometric Society of Japan, Fukuoka pp: 163-167.
- 1998 - S. Lahiri and **Rao, A.S.R.S.**
Sex Differentials in Mortality Decline in India and its Major States Over the Periods 1981-85 and
1991-93. *IASSI Quarterly* Vol 16, No 3 & 4: 32-52.

To be submitted/submitted

Rao A.S.R.S and Bauch CT et al. An age structured SEIRV type model for Hepatitis A in Canada

Rao A.S.R.S and Bauch CT. Probabilities of extinction of HAV in Canada

Bauch CT, Ba F, Tricco, A, Rao A.S.R.S, Duval, B and Krahn M. Outbreak pattern and dynamic transmission of hepatitis A in a low endemic country.

Rao, A.S.R.S., Garnett, GP, Maini, PK Mathematical models for HIV viral dynamics and drug efficacy

Rao, A.S.R.S., Kakehashi, M, Maini, PK. On estimation of varying incubation periods for a dynamical model.

Rao, A.S.R.S. Limit theorem approach in epidemic reporting analysis.