## PROFESSIONAL SEMINARS

- Jack Makeham Memorial Lecture, UNE Business School, University of New England, Armidale, 7/11/15: "Factors Influencing the Productivity and Efficiency of Wheat Farmers in Punjab, Pakistan" (joint paper with Hina Nazli and Melinda Smale).
- Probability and Statistics Seminar, Department of Mathematics, University of Texas at Arlington, Texas, 23/05/13: "A Stochastic Frontier Production Function Analysis of the Technical Efficiency of Farmers Growing Different Wheat Varieties in Punjab, Pakistan".
- International Food Policy Research Institute, Washington, DC, 8/05/13: "A Stochastic Frontier Production Function Analysis of the Technical Efficiency of Farmers Growing Different Wheat Varieties in Punjab, Pakistan".
- International Food Policy Research Institute, Washington, DC, 2/04/13: "Stochastic Frontier Analysis: Concepts, Models and Applications".

- *Graduate School of Management, St Petersburg State University*, St Petersburg, Russia, 9/11/10: "Metafrontier Frameworks for the Study of Firm-Level Efficiencies and Technology Ratios".
- School of Mathematical Sciences, National University of Malaysia (UKM), Selangor, Malaysia, 19/1/09: "Metafrontier Frameworks for the Study of Firm-Level Efficiencies and Technology Ratios".
- *Faculty of Economics, Chiang Mai University*, Chiang Mai, Thailand, 25/05/07 "Metafrontier Frameworks for the Study of Firm-Level Efficiencies and Technology Ratios".
- *Pakistan Institute of Development Economics*, Islamabad, 22/11/06: "Metafrontier Frameworks for the Study of Firm-Level Efficiencies and Technology Ratios".
- International Institute of Islamic Economics, International Islamic University, Islamabad, 15/11/06: "Metafrontier Frameworks for the Study of Firm-Level Efficiencies and Technology Ratios".
- School of Economics, University of New England, Armidale, 10/08/06: "The Impact of Agricultural Loans on the Technical Efficiency of Rice Farmers in the Upper North of Thailand".
- *Pakistan Agricultural Research Centre*, Islamabad, Pakistan, 15/02/06: "Metafrontier Frameworks for the Study of Firm-Level Efficiencies and Technology Ratios".
- Department of Economics, University of Sargodha, Pakistan, 11/02/06: "Metafrontier Frameworks for the Study of Firm-Level Efficiencies and Technology Ratios".
- Andhra Pradesh Agricultural University, Hyderabad, India, 4/02/06: "Metafrontier Frameworks for the Study of Firm-Level Efficiencies and Technology Ratios".
- Department of Economics, University of Western Australia, Perth, 16/09/05: "Metafrontier Frameworks for the Study of Firm-Level Efficiencies and Technology Ratios".
- Department of Economics, Curtin University of Technology, Perth, 15/09/05: "Metafrontier Frameworks for the Study of Firm-Level Efficiencies and Technology Ratios".
- Department of Economics, University of Auckland, 26/08/05: "Metafrontier Frameworks for the Study of Firm-Level Efficiencies and Technology Ratios".
- Department of Economics, Otago University, Dunedin, 23/08/05: "Metafrontier Frameworks for the Study of Firm-Level Efficiencies and Technology Ratios".
- Department of Economics, Canterbury University, Christchurch, 18/08/05: "Metafrontier Frameworks for the Study of Firm-Level Efficiencies and Technology Ratios".
- School of Economics, University of New England, 11/08/05: "Metafrontier Frameworks for the Study of Firm-Level Efficiencies and Technology Ratios".
- Department of Economics, University of Hawaii at Manoa, 25/02/05: "Metafrontier Functions for the Study of Inter-regional Productivity Differences".
- Department of Agricultural and Resource Economics, University of California at Davis, 14/02/05: "Metafrontier Functions for the Study of Inter-regional Productivity Differences".
- Department of Economics, University of Melbourne, 19/07/01: "Stochastic Frontier Analysis and Metaproduction Functions".
- *The Mansholt Institute, Wageningen University*, 26/10/99: "Firm Size, Age and Efficiency: Evidence from Kenyan Manufacturing Firms".
- Department of Economics, Hong Kong Baptist University, 13–17/09/99: Invited Lectures on "Stochastic Frontiers: Concepts, Models and Applications".
- *The Anderson Graduate School of Management, University of California at Los Angeles*, 6/11/98: "Introduction to Frontier Models" and "Efficiency of Labour Use in the Swedish Banking Industry: A Stochastic Frontier Approach".
- Department of Economics, Michigan State University, 4/11/98: "Efficiency of Labour Use in the Swedish Banking Industry: A Stochastic Frontier Approach".
- Department of Econometrics, University of New England, 3/07/98: "A Stochastic Frontier Model for the Analysis of the Effects of Quality of Irrigation Water on Crop Yields".

- Applied Economics Research Centre, University of Karachi, 13/02/98: "Functional Forms of Stochastic Frontier Production Functions and Technical Inefficiency Effects: A Comparative Study of Wheat Farmers in Pakistan".
- Department of Economics, Institute for Advanced Studies, Vienna, 30/06/97: "Stochastic Frontier Production Functions and Models for Technical Inefficiency Effects".
- Department of Economics, University of Oslo, Oslo, 7/05/97: "Stochastic Frontier Production Functions and Models for Technical Inefficiency Effects".
- Department of Management, Odense University, Denmark, 14/03/97: "Stochastic Frontier Production Functions and Models for Technical Inefficiency Effects".
- Department of Economics, Royal Veterinary and Agricultural University, Copenhagen, 11/03/97: "Stochastic Frontier Production Functions and Models for Technical Inefficiency Effects".
- School of Economics and Commercial Law, Göteborg University, Gothenburg, Special Lecture to Economics Students from Tilburg University, 3/04/97: "Econometrics and Production Functions".
- Department of Economic Statistics, Stockholm School of Economics, 13/03/97: "Stochastic Frontier Production Functions and Models for Technical Inefficiency Effects".
- Department of Economics, Göteborg University, Gothenburg, 24/01/97: "The Relationship Between Farm Size and the Technical Inefficiency of Production of Wheat Farmers in Eastern Orange Free State, South Africa".
- School of Economic Studies, University of Manchester, 21/06/96: "Functional Forms of Stochastic Frontier Production Functions and Models for Technical Inefficiency Effects".
- *Econometrics Workshop, Department of Applied Economics, University of Cambridge,* 19/06/96: "Functional Forms of Stochastic Frontier Production Functions and Models for Technical Inefficiency Effects".
- *Economic & Social Research Council, Development Studies Group, London School of Economics,* 14/06/96: "Functional Forms of Stochastic Frontier Production Functions and Models for Technical Inefficiency Effects".
- Department of Agricultural Economics and Management, University of Reading, 13/06/96: "Frontier Production Functions: An Application to Indian Paddy Farmers".
- Joint Seminar to the Departments of Agricultural Economics and Policy, Development Economics, and General Economics, Wageningen Agricultural University, 10/06/96: "Functional Forms of Stochastic Frontier Production Functions and Models for Technical Inefficiency Effects".
- Department of Economics, University of Queensland, Brisbane, 15/03/96: "Functional Forms of Stochastic Frontier Production Functions and Models for Technical Inefficiency Effects".
- Department of Agricultural Economics and Food Marketing, University of Newcastle Upon Tyne, 25/10/95: "Frontier Production Functions and Technical Efficiency: Concepts, Models and Applications".
- *Econometrics and Statistics Colloquium, University of Chicago*, 2/11/94: "A Model for Technical Inefficiency Effects in a Stochastic Frontier Production Function for Panel Data".
- Department of Statistics, Australian National University, Canberra, 15/04/94: "A Generalised Stochastic Frontier Production Function Incorporating a Model for Technical Inefficiency Effects".
- Department of Economics, University of Otago, Dunedin, 11/02/94: "A Generalised Stochastic Frontier Production Function Incorporating a Model for Technical Inefficiency Effects".
- Department of Agricultural Economics, University of Kentucky, 19/11/93: "A Generalised Stochastic Frontier Production Function Incorporating a Model for Technical Inefficiency Effects".
- Department of Economics, Rice University, Houston, 13/11/93: "A Generalised Stochastic Frontier Production Function Incorporating a Model for Technical Inefficiency Effects".

- Joint Department of Economics and Department of Statistics Colloquium, Texas A & M University, College Station, 12/11/93: "A Generalised Stochastic Frontier Production Function Incorporating a Model for Technical Inefficiency Effects".
- International Food Policy Research Institute, Washington, 2/07/93: "An Investigation of Technical Inefficiencies of Production of Wheat Farmers in Four Districts of Pakistan".
- Department of Agricultural Economics, University of Kentucky, 20/11/92: "Frontier Production Functions and Technical Efficiency: With Application to Panel Data from Selected Indian Villages"
- Department of Economics, Union College, Schenectady, 18/11/92: "Estimation of Stochastic Frontier Production Functions with Time-Varying Parameters and Technical Efficiencies Using Panel Data from Indian Villages".
- Department of Economics, University of Connecticut, Storrs, 17/11/92: "Frontier Production Functions and Technical Efficiency: With Application to Panel Data from Selected Indian Villages".
- Department of Economics, Vanderbilt University, Nashville, 10/11/92: "Estimation of Stochastic Frontier Production Functions with Time-Varying Parameters and Technical Efficiencies Using Panel Data from Indian Villages".
- Joint Seminar of the Department of Economics and the Department of Agricultural Economics, Louisiana State University, Baton Rouge, 9/11/92: "Frontier Production Functions and Technical Efficiency and Panel Data: Concepts, Models and Applications".
- Department of Agricultural Economics, University of Sydney, 25/06/92: "Frontier Production Functions and Technical Efficiency and Panel Data: Concepts, Models and Applications".
- International Food Policy Research Institute, Washington, 12/12/91: "Frontier Production Functions, Technical Efficiency and Panel Data: With Application to Paddy Farmers in India".
- *Department of Economics, Southern Methodist University*, Dallas, 4/12/91: "Frontier Production Functions, Technical Efficiency and Panel Data: With Application to Paddy Farmers in India".
- Department of Economics, University of Texas at Austin, 2/12/91: "Frontier Production Functions, Technical Efficiency and Panel Data: With Application to Paddy Farmers in India".
- Department of Economics, University of Michigan, Ann Arbor, 16/11/90: "Frontier Production Functions, Technical Efficiency and Panel Data".
- Department of Economics, Iowa State University, Ames, 8/11/90: "Frontier Production Functions, Technical Efficiency and Panel Data".
- Department of Economics, Research School of Pacific Studies, Australian National University, Canberra, 29/11/88: "Frontier Production Functions and Technical Efficiencies of Firms: With Application to Panel Data from ICRISAT's Village Level Studies".
- International Crops Research Institute for the Semi-Arid Tropics, Patancheru, India, 30/09/88: "Frontier Production Functions and Technical Efficiencies of Farms: With Application to Panel Data from ICRISAT's Village Level Studies".
- *Human Nutrition Information Service, U.S. Dept. of Agriculture*, Washington, 20/04/88: "Estimation of the Distribution of Usual Intakes for Selected Dietary Components Using Data from the 1985/86 Continuing Survey of Food Intakes by Individuals".
- *Department of Statistics, Iowa State University*, Ames, 16/11/87: "On Teaching the Concept of a Density Function of a Continuous Random Variable in an Elementary Statistics Course".
- *Econometrics Workshop, Department of Economics, Michigan State University*, East Lansing, 8/10/87: "Prediction of Firm-Level Technical Efficiencies, Given a Generalised Frontier Production Function and Panel Data".
- Statistical Laboratory, Iowa State University, Ames, 18/03/87: "Frontier Production Functions and Technical Efficiency of Firms".
- Department of Statistics, Australian National University, 14/10/83: "An Error Components Model for Prediction of County Crop Areas Using Survey and Satellite Data".
- *Remote Sensing Section, U.S. Dept. of Agriculture*, Washington, 2004/81: "Prediction of County Crop Areas Using Survey and Satellite Data".

- *Statistical Laboratory, Iowa State University*, Ames, 15/10/80: "Heteroscedastic Regression Models and the Estimation of Expenditure Functions".
- Department of Econometrics, University of New South Wales, 14/10/77: "Heteroscedasticity and the Estimation of Household Expenditure Functions for Australia".
- N.S.W. Department of Agriculture Research Station, Grafton, 19/08/77: "Experimental Data and Lack-of-Fit Tests".
- *Statistics Colloquium, University of New England*, Armidale, 8/08/77: "Heteroscedasticity and the Estimation of Household Expenditure Functions for Australia".
- *Faculty of Economic Studies, University of New England*, Armidale, 27/05/76: "Heteroscedastic Linear Models: With Application in Economics".
- Statistical Laboratory, Iowa State University, Ames, 5/01/72: "Transformations for Regression Analyses of Correlated Observations".