**Advanced Structural Equation Modelling & Measurement Theory**

**Dates:** 17-19 December 2019

**Times:** 09.00 – 18.00

**Venue:** Beech Grove Room, University House (29th January)

St George Room, University House (30th January)

TBC (14th March)

**Seminar objectives**

The purpose of this intensive three-day seminar is to provide a user-friendly, in-depth introduction to (covariance-based) structural equations modelling (SEM) using the LISREL program and the SIMPLIS command language. The seminar’s emphasis is on understanding and applying SEM as a tool in substantive research and its target audience includes doctoral students and academic researchers involved in quantitative modeling and data analysis. **Important:** *The seminar assumes prior knowledge of data analysis and multivariate statistics (including factor analysis and regression).*

The seminar seeks to familiarize participants with the various stages associated with conceptualizing, identifying, estimating, and evaluating structural equation models, highlighting key decisions and potential problems at each stage. Following an introduction of SEM as an analytical approach, issues associated with the theoretical specification and graphical representation of a full latent variable model are discussed. These set the background for applying the LISREL program to estimate the model and assess its fit along different criteria. Strategies for model modification and cross-validation are also outlined. To enable participants experience SEM “in action”, the above issues are illustrated with a concrete example of a model estimated by the LISREL program. Detailed guidance for setting up and interpreting the relevant input/output files of the program is also provided.

Once course participants have become familiar with the basic principles of SEM and the use of the LISREL program, several different types of models will be illustrated, such as regression-type models, path analysis models, measurement models, and MIMIC models. In addition, various LISREL programming issues (e.g., fixing specific parameters, incorporating equality constraints, undertaking an effect decomposition) will be discussed as will problems that might be encountered.

The seminar will take the form of interactive workshop sessions, placing particular emphasis on student participation.

**Advanced**

The purpose of this intensive seminar is to discuss selected advanced topics in structural equation modelling (SEM) using the LISREL programme. The seminar also addresses measurement theory and scaling issues and discusses alternative approaches for developing and evaluating multi-item measures. The seminar is designed for doctoral students and academic researchers who have already had a basic course in SEM and wish to develop their skills at a more advanced level. It is expected that applicants have previous knowledge of data analysis and multivariate statistics and, ideally, some prior experience with the LISREL programme.

The seminar seeks to familiarize participants with the various stages associated with conceptualizing, operationalizing, estimating, and evaluating complex SEM models, highlighting key decisions and potential problems at each stage. The content of the seminar is not fully fixed but will be partly tailored according to the needs, prior experience, and interests of the participants. The following topics are most likely to be among those covered:

*Review of SEM model specification, identification and estimation issues; fit assessment and model modification strategies; cross-validation approaches; mediation and moderation; observed variable models; reflective and formative measurement models; higher-order models; single-item measurement; parceling strategies;* and *multi-sample models*.

The above topics will be illustrated by using the LISREL program to estimate the relevant models. The seminar will take the form of interactive workshop sessions, placing particular emphasis on student participation. It assumes a high degree of interest and motivation on the part of the participants and a willingness to actively contribute to the learning process.

Further seminar and programme details and readings will be sent to selected participants in due course.

**Professor Adamantios Diamantopoulos** BA MSc PhD DLitt holds the Chair of International Marketing at the University of Vienna, Austria.  He is also Visiting Professor at the University of Ljubljana, Slovenia and Senior Fellow at the Dr. Theo and Friedl Schoeller Research Center for Business & Society, Nuremburg, Germany. During the academic year 2012/13, he was the “*Joseph A. Schumpeter Fellow*” at Harvard University. His main research interests are in international marketing and research methodology, and he is the author of some 150 journal articles in these areas. His work has appeared, among others, in the *Journal of Marketing Research*, *Journal of International Business Studies*, *Journal of the Academy of Marketing Science*, *International Journal of Research in Marketing*, *Journal of Service Research*, *Journal of International Marketing*, *Journal of Retailing*, *MIS Quarterly, Organizational Research Methods, Psychological Methods, Information Systems Research,* and *Journal of Business Research*. He has been the recipient of several Best Paper Awards, including the 2013 Hans B. Thorelli Award for the article published in *Journal of International Marketing* that has made the most significant and long-term contribution to international marketing theory or practice. He sits on the Editorial Review Boards of a dozen academic journals, and acts as a referee for several professional associations and funding bodies. In 2000, he was elected Fellow of the British Academy of Management and in 2013 Fellow of the European Marketing Academy.

**Programme (all three days)**

09.00 Coffee and registration

09.30 Seminar begins

11.00 Break

11.15 Seminar commences

13.00 Lunch

14.00 Seminar commences

15.30 Break

15.45 Seminar commences

17.30 Close

**Directions to the University of Leeds:**

<http://www.leeds.ac.uk/info/5000/about/131/find_us>

**To register your interest:**

Please complete all sections of the registration form below, making sure to include additional information (not exceeding 200 words) where requested.

You will receive notification if a place is allocated to you. Please do not make any travel arrangements until you have received confirmation of a place. We have a limited number of places available on NARTI training sessions and if at any time you need to withdraw your registration or cancel your place please inform us immediately so that we can offer the place to someone else. Please note that non-attendance is recorded and will have an impact on future selection.

It is expected that you participate for the full three-day duration of the seminar and allow sufficient time for travelling to the venue.

NARTI and the host institution will cover the full cost of the event and participants are asked to cover the cost of any travel and accommodation as required.

For further information about this seminar or any other NARTI training event, please contact Jo Garrick.

**REGISTRATION FORM**

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| **Name** |  |
| **University** |  |
| **Area of research** |  |
| **Level of study** | **□ Doctoral Student (please indicate your year of study)**  **□ Postdoctoral academic researcher** |
| **University e-mail address** |  |
| **Confirmation that you are available for all three seminar dates for the full duration of the programme.** |  |
| **Dietary requirements** |  |
| **Disability requirements** |  |
| **200 word summary of why you wish to participate in the seminar and previous knowledge and experience of data analysis, multivariate statistics and LISREL programme.**  **Please also list any courses you have attended in the above including dates, training provider and location.** |  |

Please return to Jo Garrick ([narti@lubs.leeds.ac.uk](mailto:narti@lubs.leeds.ac.uk)) by no later than