



IFCS06

Conference Program

Data Science and Classification

25 - 29 July 2006, Ljubljana, Slovenija

www.ifcs2006.org



Ljubljana, July 12, 2006

Tuesday July 25

Registration

Tuesday	
July 25	
8:00-19:00	Registration

Tutorials

Tuesday	Hall 1
July 25	Tutorial on Symbolic Data Analysis
9:00-13:00	Lectures
13:00-14:00	Lunch
14:00-18:00	Lectures
Tuesday	Hall 2
July 25	Tutorial on Blockmodeling
10:00-13:00	Lectures
13:00-14:30	Lunch
14:30-17:30	Lectures

Reception

Tuesday		Senat Room
July 25		
18:00-	Welcome Reception	Executive Committee Meeting

Wednesday July 26

Registration

Wednesday	
July 26	
8:00-9:00	Registration

Opening Ceremony

Wednesday	Hall 1
July 26	
9:00-9:20	Opening Ceremony

Plenary session

Wednesday	Hall 1 / chair: Fionn Murtagh
July 26	Plenary Speaker
9:20-10:20	<i>Adrian E. Raftery</i> Recent Advances in Model-Based Clustering: Variable Selection and Social Networks
10:20-10:40	Coffee Break

Invited Sessions

Wednesday	Hall 1 / chair: C. Hennig	Hall 2 / chair: I. van Mechelen	Hall 3 / chair: K. Jajuga
July 26	Design and choice of similarity and dissimilarity measures (org. C. Hennig)	Clustering and Classification of Microarray Gene Expression Data (1) (org. I. van Mechelen)	Classification and Data Analysis in Economics (org. K. Jajuga)
10:40-11:00	<i>Daniel Müllensiefen, Klaus Friele</i> Evaluating different approaches to measuring the similarity of melodies	<i>Thomas Dhollander, Qizheng Sheng, Yves Moreau</i> Biclustering of microarray data in a Bayesian framework	<i>Eugeniusz Gatnar</i> Combining classifiers of different types
11:00-11:20	<i>Remco C. Veltkamp, Longin Jan Latecki</i> Properties and Performances of Shape Similarity Measures	<i>Sara C. Madeira, Arlindo L. Oliveira</i> Discovering Modules in Time-Series Gene Expression Data Using Biclustering	<i>Sören W. Scholz, Ralf Wagner, Reinhold Decker</i> Classification in Marketing Science
11:20-11:40	<i>John C. Gower</i> Similarity in Retrospect	<i>Ulrich Moeller</i> Resampling-based class discovery from microarray data: Guidelines from benchmarking studies	<i>Krzysztof Jajuga</i> Copula Methods in Financial Data Analysis
11:40-12:00	<i>Theresa Scharl, Friedrich Leisch</i> A Comparison of Distance Measures for Clustering Time-Course Microarray Data	<i>Marco Alfo, Francesca Martella, Maurizio Vichi</i> Double Hierarchical Mixture model for microarray data	<i>Daniel Baier, André Bruder</i> Model Selection in Latent Class Metric Conjoint Analysis: Sequential and Simultaneous Approaches

Lunch

Wednesday		Senat Room
July 26		
12:00-13:30	Lunch	Council Meeting

Contributed Sessions

Wednesday	Hall 1 / chair: M. Vichi	Hall 2 / chair: S. Winsberg	Hall 3 / chair: V. Batagelj	Hall 4 / chair: A. Guénoche
July 26	Cluster Analysis	Multidimensional Scaling	Network Analysis	Optimization
13:30-13:50	<i>Slavka Bodjanova</i> Crisp Partitions Induced by a Fuzzy Set	<i>François Bavaud</i> Spectral clustering and multidimensional scaling: a unified view	<i>Vladimir Batagelj, Nataša Kejžar, Simona Korenjak-Černe, Matjaž Zaveršnik</i> Analyzing the Structure of U.S. Patents Network	<i>Mario Villalobos-Arias, Javier Trejos-Zelaya</i> Partitioning by particle swarm optimization
13:50-14:10	<i>Karina Gibert, Alejandra Pérez-Bonilla</i> Revised boxplot based discretization as the kernel of automatic interpretation of classes using numerical variables	<i>Sugnet Gardner, Niël J. le Roux</i> Sub-species of Homopus Areolatus? Biplots and small class inference with Analysis of Distance	<i>Hiroyuki Minami, Masahiro Mizuta</i> Empirical Study on the ICMP traffic data via the Internet	<i>Farid Beninel, Michel Grun Rehomme</i> Evaluation of allocation rules under some cost constraints
14:10-14:30	<i>Hans-Joachim Mucha</i> Finding Meaningful and Stable Clusters Using Local Cluster Analysis	<i>Patrick J.F. Groenen, Georgi Nalbantov, Cor Bioch</i> Multigroup SVM through an Optimal Scaling Approach	<i>Barbara Japelj Pavešič</i> Comparison of teaching mathematics: An application of Adapted Leaders Clustering Method	<i>Ralf Wagner</i> Patterns of Associations in Finite Sets of Items
14:30-14:50	<i>Bart Jan van Os, Jacqueline J. Meulman</i> Approximation of Globally Optimized Trees	<i>Ana Alexandra A.F. Martins, Margarida G.M.S. Cardoso</i> A Preliminary Approach to the Evaluation of MDS Unfolding Fit Measures	<i>Petra Zihlerl, Hajdeja Iglič, Anuška Ferligoj</i> Research group social capital: A Clustering Approach	<i>Philippe Nemery, Yves De Smet</i> Multicriteria Ordered Clustering
14:50-15:10	Coffee Break			

Invited Speakers

Wednesday	Hall 1 / chair: J.-P. Rassin	Hall 2 / chair: D. Banks
July 26		
15:10-16:10	<i>Carlo Lauro, Federica Gioia</i> Dependence and interdependence analysis for interval-valued variables	<i>Jacqueline J. Meulman, Jerome H. Friedman</i> New Developments in COSA: Clustering Objects on Subsets of Attributes
16:10-16:30	Coffee Break	

Invited Sessions

Wednesday	Hall 1 / chair: F. de Carvalho	Hall 2 / chair: I. van Mechelen	Hall 3 / chair: C. Weihs
July 26	Exploratory and confirmatory analysis of interval data (org. P. Brito, F. de Carvalho, R. Verde)	Clustering and Classification of Microarray Gene Expression Data (2) (org. I. van Mechelen)	Musicology (org. C. Weihs)
16:30-16:50	<i>Lynne Billard</i> Dependence in Interval-valued Observations	<i>Berthold Lausen</i> Machine learning for microarray prediction in clinical research	<i>Katrin Sommer, Claus Weihs</i> Using MCMC as a stochastic optimization procedure for musical time series
16:50-17:10	<i>Jean-Paul Rasson, François Roland</i> Some New Criteria for Hierarchical Agglomerative Clustering and for Discriminant Analysis. Applications to Interval Data	<i>Eytan Domany</i> Mining High-Throughput Biological Data: Methods, Algorithms and Applications	<i>Claus Weihs, Gero Szepannek, Uwe Ligges, Karsten Luebke, Nils Raabe</i> Local Models in Register Classification by Timbre
17:10-17:30	<i>Yves Lechevallier, Rosanna Verde, Francisco de A.T. de Carvalho</i> Symbolic Clustering of Large Datasets	<i>Iven van Mechelen</i> Biclustering Methods for Microarray Gene Expression Data: Towards a Unifying Taxonomy	

Reception

Wednesday	
July 26	
18:30-	Reception
20:00-	Council Dinner

Thursday July 27

President's Invited Session

Thursday	Hall 1 / chair: David J. Hand
July 27	Organizer: David J. Hand
9:00-10:30	<p><i>Fionn Murtagh</i> Ultrametrics in data analysis, quantum physics and computational logic</p> <p><i>Henk A.L. Kiers</i> Comparing what we have rather than developing something new?</p> <p><i>Friedrich Leisch</i> Benchmarking cluster algorithms</p>
10:30-10:50	Coffee Break

Invited Sessions

Thursday	Hall 1 / chair: R. Rocci	Hall 2 / chair: B. Fichet	Hall 3 / chair: C. Lauro
July 27	Classification of complex data (org. R. Rocci)	Dissimilarity analysis and clustering (org. B. Fichet)	Latent Class Analysis and Classification Issues (org. C. Lauro, V.E. Vinzi)
10:50-11:10	<p><i>Mohamed Nadif, Gerard Govaert</i> A review on Block clustering under the mixture approach</p>	<p><i>L. Denoud, A. Guénoche</i> Comparison of distance indices between partitions</p>	<p><i>José G. Dias</i> Model Selection for the Binary Latent Class Model. A Monte Carlo Simulation.</p>
11:10-11:30	<p><i>Giuliano Galimberti, Gabriele Soffritti</i> Clustering Data with Multiple Cluster Structures: a Model-Based Perspective</p>	<p><i>Patrice Bertrand</i> Paired-hierarchies and associated dissimilarities</p>	<p><i>Alessio Farcomeni, Maurizio Vichi</i> Model based two-mode partitioning with dependence between row and column clusters</p>
11:30-11:50	<p><i>Christophe Biernacki</i> Simultaneous Model-Based Clustering of Data Arising from Different Populations</p>	<p><i>Melvin F. Janowitz</i> Dissimilarities Taking Values in a Poset</p>	<p><i>Vincenzo Esposito Vinzi, Laura Trinchera</i> Capturing Unobserved Heterogeneity in PLS Path Modeling</p>
11:50-12:10	<p><i>Hans-Hermann Bock</i> Class prototypes for complex (interval) data</p>	<p><i>Jean Pierre Barthélémy, Marc Le Pouliquen, Patrice Bertrand</i> Phylogenetic Trees, Additive Tree Metrics and Filiation of Manuscripts: The Case of the Benares Glose.</p>	<p><i>Attilio Gardini, Michele Costa, Stefano Iezzi</i> Latent Class Analysis for Financial Data</p>
12:10-12:30	Coffee Break		

Contributed Sessions

Thursday	Hall 1 / chair: B. Lausen	Hall 2 / chair: F.R. McMorris	Hall 3 / chair: J. Gower	Hall 4 / chair: M. Bren
July 27	Data Analysis in Medicine	Graphs	Similarities for mixed variables	Poster Session
12:30-12:50	<i>Andrei Gagarin, Dmytro Kevorkov, Vladimir Makarenkov, Pablo Zentilli</i> Comparison of two methods for detecting and correcting systematic error in high-throughput screening	<i>Willem J. Heiser, Laurence E. Frank</i> Network Representations of City-Block Models	<i>Lan Umek, Luka Bresciani, Luka Kronegger</i> An overview of mixed data analysis based on Gower's coefficient of similarity	<i>Iwona Roeske-Slomka</i> Objects grouping based on entropy
12:50-13:10	<i>Shinobu Tatsunami, Rie Kuwabara, Masashi Taki, Junichi Mimaya, Akira Shirahata</i> Application of Categorical Principal Component Analysis to the Classification of Antiretroviral Drug Usage	<i>Gentian Gusho</i> Properties of Minimum Rigidity Graphs Associated with a Clustering System	<i>Petra Bastjančič, Nejc Bergant, Renata Blatnik, Miran Juretič, Mojca Omerzu, Jure Željko</i> Comparison of clustering approaches for mixed data: a simulation study	<i>Deirdre Toher, Gerard Downey, Thomas Brendan Murphy</i> A One-sided View of Classification: A food science perspective
13:10-13:30	<i>Vesna Zadnik, Tina Žagar, Maja Primic Žakelj</i> The Geographical Variation of Cervical Cancer Screening Efficiency in Slovenia	<i>Zenel Batagelj, Vladimir Batagelj, Bojan Korenini, Vanja Govednik</i> Revealing hidden relevance in complex laddering networks	<i>Andreja Bandelj, Mateja Budin, Tomi Deutch, Andrej Kastrin, Ana Kolar, Polona Kramar</i> Comparison of clustering approaches for mixed variables	<i>Masaki Nishizawa, Yuan Sun</i> Investigation into Genome-related and Nanotechnology Research at Grants-in-Aid in JAPAN
				<i>Yuan Sun, Masaki Nishizawa</i> The classification of journals in Citation Database of Japanese Papers (CJP) by keyword analysis

Trip to Bled

Thursday	
July 27	
14:00-	Trip to Bled

Friday July 28

Invited Speakers

Friday	Hall 1 / chair: A. Ferligoj	Hall 2 / chair: M. Janowitz
July 28		
09:00-10:00	<i>Patrick Doreian</i> Some Open Problem Sets for Generalized Blockmodeling	<i>James E. Wicker; Hamparsum Bozdogan, Halima Bensmail</i> A Novel Mixture-Model Cluster Analysis With Genetic EM Algorithm and Information Complexity as the Fitness Function
10:00-10:20	Coffee Break	

Invited Sessions

Friday	Hall 1 / chair: P. Doreian	Hall 2 / chair: A. Okada	Hall 3 / chair: Y. Lechevallier
July 28	Blockmodeling (org. P. Doreian)	Multidimensional scaling of asymmetric relationships data (1) (org. A. Okada)	Symbolic data analysis (org. by the IFCS Transversal Group on Symbolic Data Analysis: R. Verde, Y. Lechevallier)
10:20-10:40	<i>Matteo Roffilli, Alessandro Lomi</i> Identifying and classifying social groups: A machine learning approach	<i>Tadashi Imaizumi</i> A Method for Local Representation the Asymmetric Similarity Data Matrix	<i>Renata M.C.R. de Souza, Francisco de A.T. de Carvalho, Daniel Ferrari Pizzato</i> A Dynamic Clustering Method for Mixed Feature-Type Symbolic Data
10:40-11:00	<i>Aleš Žiberna</i> Evaluation of Generalized blockmodeling and REGE on Regular equivalence	<i>Miki Nakai</i> Career Mobility over the Life Course among Women in Japan	<i>P.J.F. Groenen, S. Winsberg</i> Multidimensional Scaling of Histogram Dissimilarities
11:00-11:20	<i>Vladimir Batagelj, Patrick Doreian, Anuška Ferligoj</i> Three Dimensional Blockmodeling	<i>Akinori Okada</i> An Asymmetric Cluster Analysis Study of Relationships among Japanese Prefectures in Marriage	<i>Antonio Irpino, Rosanna Verde</i> A new Wasserstein based distance for the hierarchical clustering of histogram symbolic data
11:20-11:40	Coffee Break		

Contributed Sessions

Friday	Hall 1 / chair: T. Imaizumi	Hall 2 / chair: B. Mirkin	Hall 3 / chair: H. Bozdogan	Hall 4 / chair: G. Petrič
July 28	(Dis)similarities	Nonhierarchical Clustering	Statistics (1)	Text Analysis
11:40-12:00	<i>Emmanuel Blanchard, Pascale Kuntz, Mounira Harzallah, Henri Briand</i> A tree-based similarity for evaluating concept proximities in an ontology	<i>Yoshiharu Sato</i> Clustering for Mixed Data Using Spherical Representation	<i>Hans J. Vos, Ruth Ben-Yashar, Shmuel Nitzan</i> Comparing optimal individual and collective assessment procedures	<i>Michelangelo Misuraca</i> How factorial techniques can support translation processes in the Web era
12:00-12:20	<i>Fabrice Rossi, Francisco De Carvalho, Yves Lechevallier, Alzenny Da Silva</i> Dissimilarities for Web Usage Mining	<i>Bruno Leclerc</i> A consensus approach based on frequent groupings	<i>François-Joseph Lapointe</i> A Statistical Framework for Assessing the Congruence Among Overlapping Trees and Detecting Common Spatial Patterns in Comparative Phylogeography	<i>Joseph Rudman</i> Assumptions Behind the Statistics In Authorship Attribution Studies: A Search for Valid Tests
12:20-12:40	<i>Véronique Campbell, Pierre Legendre, François-Joseph Lapointe</i> Assessing congruence among ultrametric distance matrices	<i>David Banks, Natesh Pillai</i> Partition-Valued Random Variables	<i>Nathalie Cheze, Jean-Michel Poggi</i> Iterated Boosting for Outlier Detection	<i>David Dubin</i> Reframing Author Cocitation Analysis
12:40-13:00	<i>A.M. Shurygin</i> Interpoint distances	<i>Masahiro Mizuta</i> Evaluation of the Results of Functional Clustering	<i>Matevž Bren</i> The data sets from Aitchison's book in the 'compositions' package	<i>Primož Jakopin</i> Classification of Slovenian words from a search engine index

13:00-14:30	Lunch
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Invited Speakers

Friday	Hall 1 / chair: V. Batagelj	Hall 2 / chair: W. Heiser
July 28		
14:30-15:30	<i>John Shave-Taylor</i> Generalisation Analysis as a Foundation for Classification	<i>Christian Hennig, Bernhard Hausdorf</i> Design of Dissimilarity Measures: a New Dissimilarity between Species Distribution Areas

15:30-15:50	Coffee Break
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Contributed Sessions

Friday	Hall 1 / chair: Y. Sato	Hall 2 / chair: P. Groenen	Hall 3 / chair: T. Lee	Hall 4 / chair: F.-J. Lapointe
July 28	Clustering	Principal Component Analysis	Statistics (2)	Data Analysis in Biology
15:50-16:10	<i>Helena Brás Silva, Paula Brito, Joaquim Pinto da Costa</i> A New Hierarchical Clustering Method based on Graph Theory	<i>Mariëlle Linting, Jacqueline Meulman, Bart Jan van Os</i> Nonparametric Inference in Principal Components Analysis by Using Permutation Tests: Two Approaches Compared	<i>A.M. Shurygin</i> Theory of stable estimation	<i>Abdoulaye Baniré Diallo, Vladimir Makarenkov, Mathieu Blanchette, François-Joseph Lapointe</i> A new efficient method for assessing missing nucleotides in DNA sequences in the framework of a generic evolutionary model
16:10-16:30	<i>Javier Arroyo, Carlos Maté, Antonio Munoz-San Roque</i> Hierarchical Clustering for Boxplot Variables	<i>Rafik Abdesselam</i> Mixed Principal Component Analysis	<i>José António Santos, M. Manuela Neves</i> A Local Maximum Likelihood Estimator for Zero-inflated Count Data	<i>Vladimir Makarenkov, Alix Boc, Charles F. Delwiche, Alpha Boubacar Diallo, Hervé Philippe</i> New efficient algorithm for modeling partial and complete gene transfer scenarios
16:30-16:50	<i>Iven van Mechelen</i> Simultaneous Clustering Methods Using the Max Operator: The Hierarchical Classes Approach	<i>Roberto Rocci, Maurizio Vichi</i> Simultaneous models for clustering and reduction	<i>Ana Oliveira-Brochado, Francisco Vitorino Martins</i> Determining the number of components in mixture regressions of normal data	<i>Edgar Acuña, Jaime Porras</i> Improving the performance of principal components for classification of gene expression data through feature selection
16:50-17:10	<i>Marie Chavent, Yves Lechevallier</i> Empirical comparison of a divisive clustering method with the Ward and the k-means methods	<i>Bernard Fichet, Jean Gaudart, Bernard Giusiano</i> Solving oblique bivariate CART	<i>Galina Andreeva, Jake Ansell, Jonathan Crook</i> Survival combination scores: a case of a revolving store card	<i>Taerim Lee</i> Tree Structured prognostic Model for HCC Using the Gene Expression Data
17:10-17:30	<i>Bernard Harris</i> Some applications of combinatorial methods used for cluster verification		<i>Paolla Berchialla, Silvia Snidero, Alex Stancu, Cecilia Scarinzi, Roberto Corradetti, Dario Gregori</i> Bayesian models for safety design to prevent foreign body injuries in children	

Conference Dinner

Friday	
July 28	
19:00-	Conference Dinner

Saturday July 29

Presidential Address

Saturday	Hall 1 / chair: Henk Kiers
July 29	
9:00-10:00	<i>David J. Hand</i> The length and breadth of classification science: the case study of banking fraud
10:00-10:20	Coffee Break

Invited Speakers

Saturday	Hall 1 / chair: H.-H. Bock	Hall 2 / chair: E. Diday
July 29		
10:20-11:20	<i>Boris Mirkin</i> Clustering in Different Perspectives: How many clusters are there?	<i>Paula Brito</i> On the Analysis of Symbolic Data
11:20-11:40	Coffee Break	

Contributed Sessions

Saturday	Hall 1 / chair: K. Košmelj	Hall 2 / chair: S. Korenjak- Černe	Hall 3 / chair: J. Meulman	Hall 4 / chair: A. Sokolowski
July 29	Clustering Temporal Data	Two-mode Clustering	Multivariate Analysis	Application in Social Sciences
11:40-12:00	<i>A. Chouakria-Douzal, P. Nagabhushan</i> Improved Fréchet Dis- tance For Time Series	<i>Dirk Depril, Iven van Mechelen</i> One-mode additive clus- tering for two-way two- mode data: a comparison of algorithms	<i>Daniel Kosiorowski</i> About Strein Force in a Capital and Robust Analy- sis of Planar Shape	<i>W. Polasek, R. Sellner</i> How important are ICT services for economic growth?
12:00-12:20	<i>Bernard Huguency, Georges Hébrail, Yves Lechevallier</i> Computing summaries of time series databases with clustering and segmenta- tion	<i>Tom Wilderjans, Eva Ceulemans, Iven van Mechelen</i> HIC-model: A global model for coupled binary data	<i>Georgi I. Nalbantov, Jan C. Bioch, Patrick J.F. Groenen</i> Binary Classification with Support Hyperplanes	<i>Felix Rüb, Daniel Werner, Katja Wolf</i> Classification of regional labour markets for pur- poses of research and of labour market policy
12:20-12:40	<i>Vesna Žabkar, Katarina Košmelj</i> Clustering Time Varying Data of European Adver- tising Expenditures	<i>Jan Schepers, Iven van Mechelen</i> Revealing the nature of interactions in two-way two-mode data by con- strained simultaneous clustering models	<i>Ilse Stuive, Henk A.L. Kiers, Marieke E. Timmerman, Jos M.F. ten Berge</i> Adjusting incorrect classi- fications of items in sub- tests: Oblique Multiple Group method or Con- firmatory Common Factor method	<i>Carlos M.F. Monteiro, Joao Oliveira Soares, Cristina del Campo</i> Regional Clusters and Socio-economic diversity in the European Union
12:40-13:00	<i>Gaj Vidmar, Krešimir Matković, Branimir Leskošek, Drago Rudel</i> Exploratory Analysis of Uterine Electromyo- graphic Data from Preg- nant Sheep	<i>Hans-Friedrich Köhn</i> Anti-Robinson Structures for Analyzing Three-way Two-mode Data		<i>Guy Cucumel, Véronique Mallandain, Marie-Marthe Cousineau</i> Looking for a Typology of Sexual Practices by Adolescents in Three Sec- ondary Schools in Quebec
13:00-14:30	Lunch			

Invited Sessions

Saturday	Hall 1 / chair: A. Okada	Hall 2 / chair: A. Ferligoj	Hall 3 / chair: L. Schmidt-Thieme
July 29	Multidimensional scaling of asymmetric relationships data (2) (org. A. Okada)	Spatial Classification (org. E. Diday, V. Batagelj)	Web mining (org. L. Schmidt-Thieme)
14:30-14:50	<i>Kohei Adachi</i> Nonlinear Principal Component Analysis for Representing Inter-variable Relationships by Trajectories	<i>Edwin Diday</i> Spatial Classification	<i>Christoph Schmitz, Andreas Hotho, Robert Jäschke, Gerd Stumme</i> Mining Association Rules in Folksonomies
14:50-15:10	<i>Naohito Chino, Shingo Saburi</i> A link between the asymmetric MDS and the analysis of contingency table	<i>Mohamed Cherif Rahal, Edwin Diday</i> Spatial hierarchical and pyramidal clustering software	<i>Miha Grčar, Blaž Fortuna, Dunja Mladenič, Marko Grobelnik</i> kNN Versus SVM in the Collaborative Filtering Framework
15:10-15:30	<i>Akinobu Takeuchi, Hiroshi Yadohisa</i> Simulation study of asymmetric k-medoids clustering algorithms for dissimilarity data	<i>Vladimir Batagelj</i> Combining data and network analysis	<i>Karen H. L. Tso, Lars Schmidt-Thieme</i> Empirical Analysis of Attribute-Aware Recommendation Algorithms with Variable Synthetic Data
15:30-15:50	<i>Giuseppe Bove</i> Asymmetric Multidimensional Scaling with External Information: Some Possible Approaches		<i>Andreas Geyer-Schulz, Bettina Hoser</i> On the Eigensystems of Operational Accounting Systems
15:50-16:10	Coffee Break		

Closing Ceremony

Saturday	Hall 1
July 29	
16:10-	Closing Ceremony