Room:	Grand Ballroom
Chair:	**Richard Eckard**
0900 - 0910	Welcome from Conference Chair
0910 - 0920	Welcome - **Junichi Takahashi and Roger Hegarty** *(mp4 not available)* **(pdf)**
0920 - 0940	Opening
Theme:	1. Global perspectives and policy
Chairs:	**Dr Harry Clark & Dr Alexandre Berndt**
0940 - 1005	Achieving food security and climate change mitigation - the policy challenge for animal production - **Pierre Gerber** *(mp4 not available)* **(pdf)**

1005 - 1030	International initiatives in support of agricultural GHG mitigation - **Martin Scholten** *(mp4 not available)* **(pdf)**

Theme:	6. Mitigation in practice
Chairs:	Professor Roger Hegarty & Dr Cecile Martin
1030 - 1045	The concordance between greenhouse gas emissions, livestock production and profitability of extensive beef farming systems - **Matt Harrison** *(mp4 not available)* **(pdf)**
1045 - 1100	Nitrification inhibitors to mitigate nitrous oxide - a summary of UK data - **Tom Misselbrook** *(mp4 not available)* **(pdf)**
1100 - 1130	**Morning Tea**

Room:	Grand Ballroom 1 & 2	Grand Ballroom 3 & 4
Theme:	6. Mitigation in practice	9. Adaptation and mitigation

Chairs:	Dr Joe Jacobs & Dr Marta Alfaro	Dr Cecile de Klein & Dr Mark Powell
1130 - 1145	Enteric methane emissions of nellore steers in different grazing production systems in Brazil - **Alexandre Berndt** **(mp4)** **(pdf)**	Forage quality and methane production of the grazing portion of grass produced under elevated [CO2] - **Adibe Abdalla** **(mp4)** **(pdf)**
1145 - 1200	Carbon footprint of milk production under smallholder dairying in Anand district of India: A cradle-to-farm gate life cycle assessment - **Manget Ram** **(absent)**	Use of dietary nitrate supplementation to reduce methane emissions in ruminants: effects of ruminal adaption and supplementary glucose or glycerol on microbial fermentation and nitrite accumulation in rumen contents in vitro - **Victoire De Raphélis-Soissan** **(mp4) (pdf)**
1200 - 1215	Getting traction for action: how Australian abatement methodologies are being translated to on farm practices - **Tom Davison** **(mp4)** **(pdf)**	Achieving mitigation through adaptation: climate smart livestock solutions in Southern Africa - **Anne Mottet (mp4) (pdf)**
1215 - 1230	The effect of dietary nitrate on enteric methane emissions and methaemoglobin in ruminants: a meta-analysis - **Jamie Newbold** **(mp4)**	Greenhouse gas offsets in livestock systems - **Sheilah Nolan** **(mp4)** **(pdf)**

	(pdf)
1230 - 1330	**Lunch**
Room:	Grand Ballroom
Theme:	5. Mitigation of methane and nitrous oxide from excreta and manure management
Chairs:	**Prof Phil Vercoe & Prof Adibe Abdalla**
1330 - 1355	Swine wastewater treatment technology to reduce nitrous oxide emission by using an aerobic bioreactor packed with carbon fibres - **Takahiro Yamashita (mp4) (pdf)**
1355 - 1420	Nitrous oxide emissions from livestock urine and dung - **Dave Chadwick (mp4) (pdf)**
Theme:	3. Advances in understanding biology and biochemistry of non-CO_2 emissions from livestock

1420 - 1445	Molecular biology and biochemistry of archaeal DNA replication - **Isaac Cann (mp4) (pdf)**	
1445 - 1510	An integrated compound library screening approach for discovery of specific inhibitors for mitigating ruminant methane emissions - **Greg Cook** *(presentation not available)*	
1510 - 1540	**Afternoon Tea**	
Room:	Grand Ballroom 1 & 2	Grand Ballroom 3 & 4
Theme:	5. Mitigation of methane and nitrous oxide from excreta and manure management	3. Advances in understanding biology and biochemistry of non-CO_2 emissions from livestock
Chairs:	**Prof Claudia Wagner-Riddle & Dr Soren Petersen**	**Dr Peter Moate & Dr Diego Morgavi**
1540 - 1555	Nitrous oxide emissions and relationships with ammonia oxidising communities, soil conditions and the use of a nitrification inhibitor - **Hong Di (mp4) (pdf)**	The importance of co-denitrification in nitrogen cycling in grazed pasture systems - **Karl Richards (mp4) (pdf)**

1555 - 1610	Acidification with sulfur of the separated solid fraction of raw and co-digested pig slurry: effect on GHG and ammonia emissions during storage - **Elio Dinuccio** **(mp4)** **(pdf)**	Contribution of the co-denitrification process to soil nitrous oxide and dinitrogen emissions under ruminant urine patches - **Tim Clough** **(mp4)** **(pdf)**
1610 - 1625	Greenhouse gas emissions from dung, urine and dairy pond sludge applied to pasture. 1. Nitrous oxide emissions - **Kevin Kelly** **(mp4)** **(pdf)**	High-resolution denitrification kinetics in pasture soils link N2O emissions to pH, and denitrification to soil respiration and moisture content - **Sergio Morales** **(mp4)** **(pdf)**
1625 - 1640	Reducing Gaseous Emissions from Manure Management in Ireland - **Gary Lanigan** **(mp4)** **(pdf)**	Comparison of methane emissions of Belgian Blue and Holstein Friesian heifers - **Nico Peiren** **(mp4)** **(pdf)**
1640 - 1655	Mixing dicyandiamide (DCD) with supplementary feeds for cattle: an effective method to deliver a nitrification inhibitor to urine patches - **Eddy Minet** **(mp4)** **(pdf)**	Disentangling the effect of urine patch size and N content on cumulative N2O emissions - **Karina Marsden** **(mp4)** **(pdf)**
1655 -	Greenhouse gas emissions from different dairy barnyard surfaces - **Mark Powell**	Phloroglucinol degradation in the rumen promote the redirection of hydrogen when methanogenesis is

1710	**(mp4) (pdf)**	suppressed - **Gonzalo Martinez Fernandez (mp4) (pdf)**

1710	Day One Ends

1800 - 2100	Evening Reception Function

Room:	Grand Ballroom
Theme:	7. Whole farm systems modeling of mitigation options
Chairs:	**Dr Ed Charmley and Prof Deli Chen**

0900 - 0925	Assessing simulation models for field scale projections of pasture and crop GHG emissions - **Jean Francois Soussana (mp4) (pdf)**

0925 - 0950	WFS evaluation of mitigation options for the livestock industries - **Richard Rawnsley and Robyn Dynes (mp4) (pdf)**

Theme:	2. Improvements in the measurement of methane and nitrous oxide	
0950 - 1015	The sulphur hexafluoride (SF6) tracer gas technique for determination of methane emissions from ruminants - **Matt Deighton (mp4) (pdf)**	
1015 - 1040	The GreenFeed system for measurement of enteric methane emissions from cattle - **Kirsty Hammond (mp4) (pdf)**	
1040 - 1120	**Morning Tea**	
Room:	Grand Ballroom 1 & 2	Grand Ballroom 3 & 4
Theme:	2. Improvements in the measurement of methane and nitrous oxide	7. Whole farm systems modeling of mitigation options 8. Advances in process level modeling of methane and nitrous oxide
Chairs:	**Alex Hristov & Carla Soliva**	**Dr Robyn Dynes & Ermias Kebreab**
1120 -	F-NIRS approach of the seasonal profile of CH4 emission of dairy herds	Modeling the Effects of Variation in Passage Rate on Methane Emissions -

1135	in a agro sylvo pastoral ecosystem of sub-Saharan Africa (Kolda, Senegal) - **Alexandre Ickowicz** **(mp4)** **(pdf)**	**Pekka Huhtanen** **(mp4)** **(pdf)**
1135 - 1150	A real-time intra-ruminal gas monitoring system for ruminants - **Greg Bishop-Hurley** **(mp4)** **(pdf)**	Quantifying the Greenhouse Gas Benefits of Changes in Livestock and Manure Management at the Farm Scale - **April Leytem** **(mp4)** **(pdf)**
1150 - 1205	Repeatability of methane emissions in Australian beef cattle - **Kath Donoghue** **(mp4)** **(pdf)**	Ex-ante farm-scale analysis of the impacts of livestock intensification on greenhouse gas emissions of mixed crop-livestock systems in western Africa - **Jonathan Vayssières** **(mp4)** **(pdf)**
1205 - 1220	Additional data to the methane inventory for sheep and the effect on the current predictions - **Stefan Muetzel** **(mp4)** **(pdf)**	How can grass-based dairy farmers reduce the carbon footprint of milk? - **Donal O'Brien** **(mp4)** **(pdf)**
1220 - 1235	Methane emission measured with sensors correlates with climate respiration chamber measurement - **Marleen Visker** **(mp4)**	Relationships between milk fatty acid profiles and enteric methane production in dairy cattle fed grass- or grass silage-based diets - **Jan Dijkstra** **(mp4)**

	(pdf)	**(pdf)**
1235 - 1250	Evaluation of Diurnal Patterns of Methane Emissions - **Scott Zimmerman** **(mp4)** **(pdf)**	Manure (re)distribution as predictor of N2O emissions - **Soren Petersen** **(mp4)** **(pdf)**
1250 - 1320	**Lunch**	
1320 - 1420	**DSM Lunch Symposium**	
Room:	Grand Ballroom	
Theme:	8. Advances in process level modeling of methane and nitrous oxide	
Chairs:	**Dr Jean-Francois Soussana & Andre Bannink**	
1420 - 1445	The AusBeef rumen model: description and comparison of improved methane prediction methods - **Ermias Kebreab (mp4) (pdf)**	

1445 - 1510	Explicit modelling of urinary losses and nitrous oxide - **Val Snow (mp4) (pdf)**
1510 - 1800	**Afternoon Tea & Poster Session**
0900 - 1600	Mid conference tour - Ellinbank Dairy Centre - **view outline**
1900 - 2300	Conference Dinner

Room:	Grand Ballroom 5 & 6	Grand Ballroom 4
Theme:	5. Mitigation of methane and nitrous oxide from excreta and manure management	3. Advances in understanding biology and biochemistry of non-CO2 emissions from livestock
Chairs:	**Tom Misselbrook & Karl Richards**	**Karen Beauchemin & Yvette de Haas**
0900 -	Greenhouse gas emissions during	Circadian characterization of thyroid

0915	storage of digested manure - effects of the digester hydraulic retention time - **Lena Rodhe** **(mp4)** **(pdf)**	hormones, methane and heat production profiles across physiological states in replacement beef heifers - **Yuri Montanholi** *(mp4 unavailable)* **(pdf)**
0915 - 0930	Reducing the contribution of stored manure to the greenhouse gas budget of dairy farms - **Claudia Wagner-Riddle** **(mp4)** **(pdf)**	The application of 'omic' technologies to understand low methane animal gut systems - **Stuart Denman** *(mp4 unavailable)* **(pdf)**
0930 - 0945	Using lignite to mitigate of ammonia loss from intensive cattle feedlots - **Deli Chen** **(mp4)** **(pdf)**	Nutritional amendments to simultaneously minimize enteric methane emissions and nitrogen excretion from dairy cows - **Mutian Niu** *(mp4 unavailable)* **(pdf)**
0945 - 1000	Methane, Nitrous Oxide and Carbon-dioxide emissions from the liquid dairy manure management chain in New Zealand as affected by acidification and separation - **Tim Clough** **(mp4)** **(pdf)**	Specific and chemically-defined inhibitors of ruminant methanogens: a review - **Ron Ronimus** *(mp4 unavailable)*
1000 - 1040	**Morning Tea**	

Room:	Grand Ballroom 5 & 6
Theme:	1. Global perspectives and policy
Chairs:	**Dr Pierre Gerber and Dr Martin Scholten**
1040 - 1055	A universal equation to predict methane production of forage-fed cattle in Australia - **Ed Charmley (mp4) (pdf)**
1055 - 1110	Greenhouse gas mitigation potential of the world's grazing lands: modelling soil carbon and nitrogen fluxes of mitigation practices - **Ben Henderson (mp4) (pdf)**
1110 - 1125	How much does livestock actually contribute to global warming? - **Harry Clark (mp4) (pdf)**
Theme:	New advances in methane mitigation of emissions from ruminant livestock
Chairs:	**Dr Chris McSweeny & Professor Metha Wanapat**

1125 - 1150	Enteric methane amelioration using plant secondary metabolites - **Raghavendra Bhatta (mp4) (pdf)**
1150 - 1250	**Lunch**
Room:	Grand Ballrom 5 & 6
1250 - 1305	An inhibitor of methanogenesis that could reduce green house gas emissions by ruminants - **David Yanez-Ruiz (mp4) (pdf)**
1305 - 1320	Effect of 3-nitrooxypropanol on ruminal fermentation, methane and hydrogen emissions, and methane isotopic composition in dairy cows - **Alexander Hristov (mp4) (pdf)**
1320 - 1335	Sheep grazing a shrub and pasture inter-row system have lower methane intensity than sheep grazing pasture with grain supplementation - **Philip Vercoe (mp4) (pdf)**
1335 - 1350	Interactions between diet and rumen transcriptomic pathways and association with methane emissions - **Ruidong Xiang (mp4) (pdf)**

1350 - 1405	Global Rumen Census Program - **Bill Kelly (mp4) (pdf)**
1405 - 1420	Short-term and long-term 3-nitrooxypropanol (NOP) supplement reduces enteric CH4 by altering rumen microbial profiles in beef cattle - **Mi Zhou (mp4) (pdf)**
1420 - 1450	Conference Summary and Closing Organising Committee **(mp4)(pdf)**
1450 - 1520	**Afternoon Tea**