Sunday, March 3

15:00 - 20:30	**Registration**
19:00 - 20:30	**Welcome Reception**

ROOMS

Welcome reception; Lunches & Official banquet	**Arrayán Room**
Room I	**Osorno A+B Room**
Room II	**Tronador Room**
Room III	**Calbuco Room**

Monday, March 4

08:45 - 09:00	**Welcome / Opening Remarks** - Andres Weintraub, Symposium Chair
09:00 - 09:05	**Forest Industry Welcome** - Jorge Seron, Forestal Arauco
09:05 - 09:15	**Housekeeping Remarks** - Karla Jaramillo, Head of Operations
09:15 - 10:15	KEYNOTE #1: Rafael Epstein (University of Chile): Optimization of Forest Industry Operations

	Room I (Harvest Scheduling I) Session Chair: Boston	Room II (Fire I) Session Chair: Belval	Room III (Remote Sensing I) Session Chair: Pascual
SESSION 1 10:20 - 11:00	**K. Boston & P. Bettinger** Use of Node density based diversification for Tabu search routine	**E. Belval, Y. Wei & D. Calkin** Effects of system structure on the efficiency of wildland fire dispatching	**A. Pascual, T. Pukkala & P. Packalen** Towards enhanced tree-level planning using laser scanning and spatially-explicit tree selection methods
	M. Ezquerro, C. Romero, L.D. Balteiro & M. Pardos Integrating protection figures into forest harvest scheduling under different silvicultural strategies	**Y. Wei, M. Thompson, J. Scott & C. O'Connor** Test an optimization model to support multi-day large fire containment decisions – a case study for the Ferguson Fire	**C. Escobar & S.F. Toth** Spatial Probabilistic Sampling of Carbon in Alaska
11:00 - 11:30	*COFFEE BREAK*		
SESSION 2 11:30 - 12:50	**Room I (Harvest Scheduling II)** Session Chair: De Santana	**Room II (Fire II)** Session Chair: McDill	**Room III (Remote Sensing II)** Session Chair: Palma
	S. Maurer & H. Rudolf-Heinimann Expected Wind Loss and the Resulting Consequences for Long-Term Forest Planning	**J.R.G. Olabarria** Regional level data server for fire hazard and behavior evaluation	**T. Feng, D. Vogt, M. Moskal, S. Gmur, K. Vogt & K. Mafune** Impact of climate change and topography on spatial and temporal NPP dynamics using time-series Landsat data and the Biome-BGC model
	A. Alonso-Ayuso, L.F. Escudero, M. Guignard-Spielberg & A. Weintraub Strategic and tactical decision levels in forestry planning under uncertainty. an integrated optimization model	**J.R.G. Olabarria, K. Reynolds, As. Larrañaga, E. Busquets, J. Garcia-Gonzalo & M. Pique** Strategic and tactical planning to improve suppression efforts against large forest fires in the Catalonia region of Spain	**R.T. Zavala, C. Mattar, M. De Armas & O. Ramírez** Multispectral imagery forest indexes: Towards a very high spatial resolution analysis for forest resources using unmanned aerial vehicle over the Patagonia
	K. Ross, S.F. Toth & W.S. Jaross Forest Harvest Scheduling with Endogenous Road Costs	**M. McDill, S. Marquez, J. Borges & Marco Marto** Designing Forest Landscapes to Reduce the Risk of Fire (Continued)	**N. Marticorena Vidal, J. Mardones Rojas, R. Palma Amestoy & R. Lastra Ossandón** New Approach for Automatic Bundle Volume Estimation on Wood Truckloads
	C.J. De Santana Decision support system to coordinate forest harvest scheduling, roads interventions planning and delivery routes decisions at the tactical planning level	**D. Calkin and E. Belval** Challenges and opportunities for the application of operations research in wildfire management	
12:50 - 14:20	*LUNCH*		
SESSION 3 14:20 - 15:40	**Room I (Harvest Scheduling III)** Session Chair: Lohmander	**Room II (Fire III)** Session Chair: Miranda	**Room III (Forest Economics)** Session Chair: Washington
	J. Garcia-Gonzalo, J. Salgado, E. Álvarez-Miranda, C. Pais & A. Weintraub A Multicriteria Stochastic Optimization Framework for Sustainable Forest Decision Making Under Uncertainty	**A. Miranda, J. Carrasco & M. Gonzálex** Evidence based definition of rural-urban interface through artificial intelligence in Chile	**C. Washington & G. Latta** Identifying Priority Forest Products Market Areas in Idaho
	P. Lohmander Optimization of Multi Species Continuous Cover Forest Management with Stochastic Prices via Determination of the Adaptive Harvest Control Function	**M. Caroca & H. Gilabert** Combining fuel properties and spatial configuration of patches to assess landscape flammability	**M. Rönnqvist, F. Basso, L.J. Basso & A. Weintraub** Equilibrium modeling of auctions in forestry
	H. Gilabert & M. McDill Forest inventory sampling error and variability of harvest scheduling results	**C. Pais, J. Carrasco, Z.J.M. Shen, A. Weintraub, D. Martell & D. Woodruff** Advanced techniques in Forest Management under wildfire uncertainty	**R. Zamora** Multi-objective Spatially-explicit Economic Optimization of Landscape Restoration in Latin America
	S. Nobre, L.D. Balteiro & Luiz C. Rodriguez Trade-offs between forest profits and pulp productivity, including wood density mix in an optimal harvest scheduling problem	**C. Pais, J. Carrasco & Z.J.M. Shen** Simulating the Impact of the Different Sources of Uncertainty in Fire Behavior	
15:40 - 16:10	*COFFEE BREAK*		
16:10 - 17:10	KEYNOTE #2: Jordi Garcia-Gonzalo (SuFoRun) - International Research on Models and decision support tools for Forest Planning under risk and Uncertainty		
17:20 - 20:20	SUFORUN COORDINATORS' MEETING		

Tuesday, March 5

09:00 - 09:05	**Housekeeping Remarks** - Karla Jaramillo, Head of Operations
09:05 - 10:05	KEYNOTE #3: Mark Finney (US Forest Service): Good News and Bad News for Wildfire Operations Research
10:05 - 10:35	*COFFEE BREAK*

	Room I (Harvest Scheduling IV) Session Chair: Jaross	Room II (Fire IV) Session Chair: Pais	Room III (Forestry DSS) Session Chair: Reynolds
SESSION 4 10:35 - 11:55	**K. Ross, S.F. Toth & W.S. Jaross** Line Graph Representation of Forest Road Networks in Harvest Scheduling Models	**J. Carrasco, C. Pais & A. Weintraub** A Cell-based Fire Spread Simulator for Forest Management	**K. Reynolds, S. Paplanus, M. Druzdzel, C. Spenser, P. Murphy & B. Miller** Latest Features of the Ecosystem Management Decision Support System, version 7.0
	M. Guignard-Spielberg, A. Alonso-Ayuso, A, Weintraub & L. Escudero Economies of scale in forest cutting and road building models via 0-1 quadratic objectives	**G. Montecinos** Assessment of the uncertainty of the Kitral simulator from a physical model	**S. Nobre, L.D. Balteiro & L.C. Rodriguez** Elements of a flexible prescription writer for industrial forest plantations: examples for eucalyptus, pine, teak, and paricá
	M.B. Bagaram, S.F. Toth, W.S. Jaross & A. Weintraub A Progressive Hedging Algorithm for Stochastic Harvest Scheduling Models with Optimal Variable Fixing	**B. Botequim, J. Guerra-Hernández, P.M. Fernandes, J.G. Borges & E. González-Ferreiro** Improving silvicultural practices for Mediterranean forests trough fire behaviour modelling using LiDAR-derived canopy fuel characteristics	
	S. Mushakhian, M. Ouhimmou & M. Rönnqvist How the minimum number of periods between regeneration harvests induces modeling mistakes in the well-known Model II forest management	**B.A. Alarcón, A. Weintraub & J.A.C. Barra** Decision making using a smart-fire fuel management simulator in a stochastic multistage environment	
12:00 - 19.00	**EXCURSION**		

Wednesday, March 6

09:00 - 10:00	KEYNOTE #4: Bistra Dilkina (U. of South California) - AI for Wildlife Conservation
10:00 - 10:30	*COFFEE BREAK*

	Room I (Forest Operations/Transportation) Session Chair: Ouhimmou	Room II (Supply Chain Optim. I) Session Chair: Rauch	Room III (Forest Eco-services I) Session Chair: Bown
SESSION 5 10:30 - 11:50	**A. Mobtaker, J. Montecinos, M. Ouhimmou, M. Rönnqvist & M. Paquet** Minimizing Spatial Dispersion of Forest Harvest Areas using Spectral Clustering and Set Covering Modelling	**D. Fjeld, A. Davidsson, C. Kögler, P. Rauch & K. Westlund** A common framework for comparison of system risks and management processes in multimodal wood supply - report from ERA-NET project MULTISTRAT (WP1)	**H.E. Bown, C.A. González-Benecke & M.P. Fernández** Water exchange at the leaf, stand and landscape level: Should water-yield be explicitly considered in forest management planning?
	V. Viana, H. Cancela & L. Pradenas Model for the optimization in the planning of services of forest harvest	**K. Westlund, P. Jönsson, D. Fjeld, P. Rauch & C. Kogler** A common framework for analyzing seasonal and weather effects on wood procurement in the forest supply chain - reporting from ERA-NET project MULTISTRAT	**G. Krsnik** Geospatial multi-criteria forest ecosystem services management in Catalonia using EMDS system tools
	R. Gallo, P. Sacco & F. Mazzetto New approaches for the automatic operational monitoring of aerial logging and motor-manual felling activities	**P. Rauch & C. Kogler** Testing multimodal wood transport options with a discrete event simulation model	**L. Brotons, J. Lawler & A. Duane** Global change debts: the tip of an iceberg not yet frozen.
	M.R. Bordón, J.M. Montagna & G. Corsano Optimal routing and scheduling for log transportation problem	**C. Kogler & P. Rauch** Evaluation of resilient and sustainable strategies based on scenario analyses of a discrete event simulation model for the wood supply chain in Austria	
12:50 - 14:20	*LUNCH*		
SESSION 6 14:20 - 15:20	**Room I (Arauco - Industry)** Session Chair: Gilabert	**Room II (Supply Chain Optim. II)** Session Chair: Fjeld	**Room III (Forest Eco-services II)** Session Chair: Paredes
	C. Parada & R. Gonzalez Optimization of yarder total productivity based on the maximization of cable payload in Chilean forestry steep terrain operations	**D. Fjeld** Managing seasonality of wood supply with multimodel systems in coastal Norway	**M. Paredes & M. Olivares & S.F. Toth** Analysis of conditioners for hydroelectrical development in Valdivia River basin: A multiobjective approach
	S. Fuenzalida, A. Toro & C. Parada Data Analysis on the Automatic Classification of Road Attributes	**J. Scholz** A Linked Data Approach for Semantically enriched Information Sharing to enable Cooperation among Actors of the Forest-based Supply Chain	**D. Sfeir, V. Hermoso, E. Álvarez-Miranda, J. Garcia-Gonzalo & A. Weintraub** Development of a MIP for the improvement on efficiency in management plans of threatened species through the use of sensitivity curves
	R. Bustamante-Ortega & S. Sandoval Development of an algorithm for individualize tree for estimate stocking at operational level using LiDAR aerial data	**N. Fernández, L. Muñoz, J.P. Cavada & A. Weintraub** Analysis Under Uncertainty In Pulp Prices to Evaluate A Mixed Integer Programming Model of Integrating Strategies In The Forest Value Chain - A Case Study In Chilean Forest Industry	**S.M Marques, V. Bushenkov, A. Lotov, J. Borges & M. Marto** A participatory forest management planning approach supported by multicriteria decision methods
15:20 - 15:50	*COFFEE BREAK*		
15:50 - 16:50	KEYNOTE #5: Taraneh Sowlati (University of British Columbia): Forest-based Biomass: Opportunities, Challenges and Supply Chain Modeling		
17:00 - 18:00	INDUSTRY PANEL		
18:00 - 19:00	BUSINESS MEETING - FUTURE OF SSAFR		
20:30 - 24:00	BANQUET - DINNER		

Thursday, March 7

09:00 - 10:00	KEYNOTE #6: Robert Haight (US Forest Service) - Invasive Species: Operations Research for Prevention, Surveillance and Control

	Room I (Bioenery Logistics) Session Chair: Scholz	Room II (Invasive Species) Session Chair: Haight	Room III (Forest Eco-services III) Session Chair: Botequim
SESSION 7 10:05 - 10:45		**S. Mushakhian, M. Ouhimmou & M. Rönnqvist** Design of Forest Supply Chain Under Uncertainty: The impact of Spruce Budworm Infestation on the Wood Supply	**B. Botequim, M. Marto, S. Marques, P. Pécurto, C. Caldas, M. Marques, C. Tavares & J.G. Borges** Trade-offs between what we need and what we get in terms of ecosystems services under climate change scenarios
	J. Scholz, P. Mandl & F. Breitwieser A spatial Agent-based Simulation of the Wood Chips Market: Comparing six different Simulation Scenarios for the Province of Carinthia, Austria	**G. Paradis, V. Lafond & V. Griess** Modelling national-scale impact of invasive forest pests in Canada using a hybrid simulation-optimization approach	**J. Borges, S. Marques, B. Botequim, M. Marto, P. Pecurto, C. Caldas, M. Marques & C. Tavares** Exploring alternative landscape-level forest management models
10:45 - 11:15	*COFFEE BREAK*		
11:15 - 12:15	KEYNOTE #7: Weikko Jaross (LandVest Corporation) - Applied Operations Research in North American Forestry - A Practitioner's Perspective		
12:15 - 12:25	Closing Remarks - Sandor Toth, Executive Director of SSAFR		
12:25 - 13:55	*LUNCH*		