

## **Contributed Sessions**



## Wednesday morning

#### Wm1 | 11:00-12:00

Chair | Alan Ager

34. Optimizing Thinning Scheduling, Carbon Stocks, and Wood Supply in Mediterranean Pine Plantations under the Risk of Fire. By Mauricio Acuna

12. Optimized Design of Wildfire Risk Mitigation Actions. By Nicolò Perello

42. Fire2a's Tools to Mitigate the Effects of Wildfires. By Filipe de La Barra

14. A Review of New Spatial Optimization Platforms for Prioritizing Investments in Wildfire Risk Reduction and Restoration. By Alan Ager

#### Wm2 | 12:00-13:00

Chair | Alan Murray

11. Optimized Hourly Fuel Moisture Model for Enhanced Wildfire Danger Assessment. By Nicolò Perello

38. Improving Fuel Characterization through Percentile-Based Canopy Base Height Models for Maritime Pine in Portugal. By Jean Magalhães

57. Strategic Fire Hazard Mitigation Planning: a Case Study in the Lousã Region, Portugal, By Ana Sá

30. Optimizing Wildland Fuels Treatment to Mitigate Wildfire Risk and Vulnerability. By Alan Murray

## Wednesday afternoon

#### Wa1 | 14:30-15:30

**Chair | Pete Bettinger** 

29. Optimizing the Allocation of Fuel Management Investments for the Portuguese National Fire Plan. By Alan Ager

21. Maximizing Opportunities for Co-Implementing Fuel Break Networks and Restoration Projects in the Umatilla National Forest, USA. By Bruno Aparício

55. Optimization-Based Impacts of Forest Management Practices on Recreational and Aesthetic Services in Forested Landscapes. By Brigite Botequim

4. A New Look at an Old Forest Harvest Scheduling and Wildfire Model. By Pete Bettinger

## Wa2 | 15:30-16:30

Chair | José González-Olabarria

20. Optimizing Residual Agro-Forestry Biomass Land Harvest while Considering Triple Bottom Line (TBL) and Wildfire Risk Factors. By Ruxanda Silva

50. Sustainable Management Model for the Residual Agroforestry Biomass Supply Chain. By Saeed Hassanpour

59. Exploring Mathematical Formulations for the Spatial Forest Planning Problem. By Miguel Gomes

13. Allocation of Optimal Fuel Management Actions That Rely on Multi-actor Prioritization Strategies. By José González-Olabarria

## **Thursday morning**

#### Tm1 | 10:00-11:00

Chair | Agostinho Agra

10. An Integer Programming Formulation for Sensor Placement in LoRaWAN Networks. By Jessica Singer

47. Optimized Distributed Temperature Sensor for Forest Fire Detection Using Existing Telecommunications Fiber Networks. By Joana Vieira

48. Optimizing Autonomous Unmanned Aerial System Deployment Locations for Enhanced Wildfire Detection and Monitoring. By Sascha Zell

40. A Robust Approach for the Prepositioning of Resources for Wildfire Suppression. By Agostinho Agra

## Tm2 | 11:30-12:45

Chair | Savvas Gkantonas

53. Advancements in Wildfire Detection: Integrating Wind Field Simulation and Gas Dispersion Modeling. By Md Khalid Mustafa

44. A Genetic Algorithm for Multiple Fires Suppression. By Marina Matos

35. Resource-Constrained Emergency Scheduling for Major Forest Fires: A Learning Driven Adaptive Artificial Bee Colony Approach. By Zilong Zhao

36. Optimal Off-Policy Evaluation in Finite Stochastic Partial Monitoring. By Mostafa Rezaei

17. A Physics-Based Optimisation Framework for the Management of Wildfire Risk and Emergencies. By Savvas Gkantonas

## **Thursday afernoon 1st**

#### Ta1 | 14:30-15:15

Chair | André Mendes

16. Iterated Local Search for Firefighting Helicopter Planning. By Marta Barreiro

41. Covering and Network Design for Wildfire Preparedness. By Elsa Silva

27. Robust Optimisation for Dispatching Fire Suppression Resources. By André Mendes

#### Ta2 | 15:15-16:00

Chair | Kristy Butler

15. Constructive Heuristics to Solve the TOPVTW Applied to Wildfire Suppression. By Bibiana Granda-Chico

46. Intelligent Decision Making in Resource Management for Wildfire Suppression. By Mahdi Bashiri

8. Heuristics for Wildfire Suppressibility in Victoria, Australia. By Kristy Butler

## Thursday afernoon 2st

#### Ta3 | 16:00-17:15

**Chair | Miguel Constantino** 

24. Data-Driven Approach for the Optimization Problem in Fire Suppression. By Mauro Barros

7. Leveraging Automatic Vehicle Location Data to Quantify Fireground Operations in Victoria, Australia. By Kristy Butler

54. Forest Road Network for Firefighter Access. By Miguel Constantino

#### Ta4 | 17:15-18:00

Chair | Marta Pascoal

6. The Graph Burning Problem under Constrained Diffusion. By Enrico Iurlano

45. pyO3F - A Python Framework for Fire Related Optimization. By Marco Marto

18. The Wildfire Safety Paths Problem. By Marta Pascoal

## **Friday morning**

#### Fm1 | 10:00-11:00

Chair | Helena Alvelos

56, The use of a Cell-Based Forest Fire Growth Model to Support Strategic Landscape Management Planning in a Portuguese landscape. By Susete Marques

26. A Surrogate-Model-Based Algorithm for Multi-objective Optimization. By Aboozar Mohammadi

1. Alleviating the Impact of Wildfires in Forest Management Planning and Supply Chain Activities. By Shuva Gautam

43. Modelling Wind Behaviour for the Development of Scenarios in the Context of Wildfire Spread. By Helena Alvelos

## Fm2 | 11:30-12:45

Chair | Abílio Pacheco

9. Predicting Demand for Wildfire Suppression Resources. By Ilbin Lee

52. Experimental and Numerical Study of Biomass Thermal Conversion in a Small-scale Reactor. By Senhorinha Teixeira

2. Comparing Post-fire Mortality in Spanish Forests: Mixed Stands and Different Fire Strategies Exhibit Higher Damage. By Marina Peris-Llopis

28. Rethinking Milling Capacity Investments in Support of Fuel Reduction Thinning Programs in the Western United States. By Greg Latta

58. FyMIS Simulator: A Versatile Tool for the Economic Evaluation of Alternative (Re)Forestation Strategies. By Abílio Pacheco



# See you in Luso!