



## Monday 7th November

09:30 – 10:30	Participants registration
10:30 – 11:00	Opening ceremony
11:00 – 11:50	<b>Peter Hudson (Keynote talk): What are the challenges for the future study of vector borne diseases? Some thoughts about patterns, processes and controls</b>
<i>Session 1. The Mediterranean fruit fly: a model of a cosmopolitan invader</i> Chair: Francesca Scolari	
12:00 – 12:20	Hannes Schuler The infection dynamics of <i>Wolbachia</i> between native and invasive <i>Rhagoletis</i> fruit flies in Europe
12:20 – 12:40	Anna Malacrida Chemoreception as an adaptive trait in the highly Invasive fruitfly <i>Ceratitis capitata</i> (Diptera, Tephritidae)
12:40 – 13:00	Francesca Scolari Larval diet impacts the composition of male pheromone blend in the Mediterranean fruit fly, <i>Ceratitis capitata</i>
13:00 – 14:30	Lunch
<i>Session 2. Invasive Alien Specie: miscellanea</i> Chair: Valerio Mazzoni	
14:30 – 14:50	Valerio Mazzoni Potential use of vibrational signals to manage the brown marmorated stink bug, <i>Halyomorpha halys</i> , a new invasive agricultural pest
14:50 – 15:10	Franck Courchamp Massive yet massively underestimated costs of invasive insects
15:10 – 15:30	Rupert Houghton Optimising invasive crayfish management by incorporating an understanding of population dynamics and their Interaction with traditional control methods in different seasons
15.30 – 15:50	Fabrizio Lombardo Unraveling the olfactory repertoire of the tiger mosquito <i>Aedes albopictus</i>
15.50 – 16:10	Alekos Simoni Genetic control of vector-borne disease by gene drive systems
16:10 – 16:40	Coffee break



<i>Session 3. The invasion of the Asian hornet, Vespa velutina, and its impact on honey bees</i> Chair: Alessandro Cini	
16:40 – 17:00	Alessandro Cini Contributing to the knowledge and management of the invasive hornet <i>Vespa velutina</i> : early warning tools, sexual communication and competition with native hornets
17:00 – 17:20	Morgane Barbet-Massin The invasion of the Asian hornet ( <i>Vespa velutina nigrithorax</i> ) in France and Europe: estimating the different economic costs
17:20 – 17:40	Alice Fournier Novel prediction of Asian hornet invasion range and impact
17:40 – 18:00	Sandro Bertolino Natural and human-mediated diffusion of <i>Vespa velutina</i> in Italy and forecasting short term spread to improve management activities
18:00 – 18:50	<b>Micheal Turelli (Keynote talk):</b> <b>Spread of introduced <i>Wolbachia</i> in natural insect populations: robust predictions relevant to dengue (and possibly Zika) control</b>
19:00 –	Welcome cocktail

## Tuesday 8th November

<i>Session 4. Studies on the ecology of mosquito and mosquito-borne pathogens</i> Chair: Alessia Melegaro	
08:30 – 09:00	<b>Hervé Zeller (Keynote talk):</b> <b>Are mosquito borne diseases transmitted by invasive <i>Aedes</i> mosquitoes an emerging threat for Europe?</b>
09:00 – 09:20	Giuliano Gasperi Global Invasion of <i>Aedes albopictus</i> as a vector of arbovirus: what consequences for disease outbreaks?
09:20 – 09:40	Ruth Müller Cold-hardiness of the Asian tiger mosquito <i>Aedes albopictus</i> , a vector of multiple viral and parasitic pathogens
09:40 – 10:00	Meghnath Dhimal Climate change and expansion of mosquito-borne viral diseases in the Hindu Kush Himalayan region
10:00 – 10:20	Lino Ometto Codon usage and phylogenetic analyses elucidate the recent evolutionary history of Zika virus
10:20 – 10:40	Maria Vittoria Mancini Insights into the bacterial microbiota components of vectors circulating in Marche region, Italy

## FACING THE INVASION OF ALIEN ARTHROPODS SPECIES

ecology, modelling and control of their economic impact and public health implication  
Trento, 7-9 November 2016



10:40 – 11:10	Coffee break
<i>Session 5. Tools and novel methods for mosquito surveillance</i>	
<i>Chair: Fabrizio Montarsi</i>	
11:10 – 11:30	Laura Vavassori Surveillance of invasive mosquitoes in Switzerland
11:30 – 11:50	Andrea Mosca Exotic mosquito surveys in Piedmont
11:50 – 12:10	Marco Ballardini Invasive mosquitoes keep spreading in Northern Italy: first report of <i>Aedes koreicus</i> in the Liguria region
12:10 – 12:30	Beniamino Caputo Development of Novel Non-Conventional Approaches to Monitor <i>Aedes albopictus</i> Abundance and Biting Rates
12:30 – 12:50	Mattia Manica Estimating <i>Aedes albopictus</i> biting females by ovitrap surveillance data in an area at high-risk of exotic arbovirus introduction
12:50 – 14:20	Lunch
<i>Session 6. Mosquito susceptibility and resistance to insecticides</i>	
<i>Chair: Frederic Baldacchino</i>	
14:20 – 15:00	<b>Alessandra della Torre (Keynote talk): Targeting <i>Aedes albopictus</i> in a metropolitan European area</b>
15:00 – 15:20	Friederike Reuss Insecticides and essential oils against the Asian bush mosquito
15:20 – 15:40	Mariangela Bonizzoni Resistance to pyrethroids in <i>Aedes albopictus</i> : results from a multi-country survey
15:40 – 16:00	Verena Pichler Susceptibility of Italian <i>Aedes albopictus</i> and <i>Culex pipiens</i> populations to insecticides most widely used in interventions against adult mosquitoes
16:00 – 16:30	Coffee break
<i>Session 7. Lexem project results on mosquito biology, modelling and control</i>	
<i>Chair: Rosà Roberto</i>	
16:30 – 17:10	<b>Stefano Merler (Keynote talk): Population dynamics of endemic mosquitoes species and epidemiological implications in Northern Italy</b>
17:10 – 17:30	Gioia Capelli Determination of ecological parameters of the invasive mosquito species <i>Aedes albopictus</i> and <i>Aedes koreicus</i> in a mountainous environment of Northeastern Italy and experimental and applied control



17:30 – 17:50	Markus Metz Potential distribution of invasive species in Italy
17:50 – 18:10	Filippo Trentini Preventing the risk of Chikungunya outbreaks through vector control programs in temperate climate countries: a cost-utility analysis in the epidemic scenario of Emilia Romagna
19:00 – 20:00	Visit Science Museum (MUSE) in Trento
20:00 –	Social dinner at MUSE

### Wednesday 9th November

<i>Session 8. Lexem project results on Drosophila suzukii biology, modelling and control</i> Chair: Andrea Pugliese	
08:30 – 09:20	<b>Claudio Ioriatti (Keynote talk):</b> <b>Current status of the <i>Drosophila suzukii</i> management in Trentino (Italy): research achievements and perspectives for sustainable control</b>
09:20 – 09:40	Valerio Rossi Stacconi Biological control of spotted wing <i>Drosophila</i> by using Italian resident parasitoids: laboratory and field experiences
09:40 – 10:00	Andrea Pugliese Models of <i>Drosophila suzukii</i> population dynamics
10:00 – 10:20	Emanuele Dal Fava Cost-benefit analysis for controlling <i>Drosophila suzukii</i> spread and infestation of soft fruits in Northern Italy
<i>Session 9. Exploring the genetic basis of Drosophila suzukii control</i> Chair: Omar Rota Stabelli	
10:20 – 10:40	Fabiana Sassù Development of the sterile insect technique to manage confined populations of <i>Drosophila suzukii</i>
10:40 – 11:00	Francesco Drago Phylogenetic incongruences indicate a complex evolutionary scenario for the bio-control agent <i>Wolbachia</i>
11:00 – 11:30	Coffee break



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11:30 – 11:50	Omar Rota Stabelli Genetic, evolutionary, symbiotic and phenotypic variations between European and American strains of <i>Drosophila suzukii</i> : implications for biocontrol and management studies
11:50 – 12:10	Gabriella Tait Reconstructing the colonization history and the population dynamic of <i>Drosophila suzukii</i> in Italy
12:10 – 12:30	Maria Cristina Crava Transcriptome profiling of adult <i>Drosophila suzukii</i> antennae
12:30 – 14:00	Lunch
<i>Session 10. Studies on the biology and ecology of Drosophila suzukii</i> Chair: Gianfranco Anfora	
14:00 – 14:20	Lorenzo Tonina The role of wild hosts, natural habitat and low temperature to promote <i>Drosophila suzukii</i> invasiveness in North-East Italy
14:20 – 14:40	Virginia Belloni Plant odorants can influence oviposition performance in <i>Drosophila suzukii</i>
14:40 – 15:00	Baláz Kiss Monitoring of invasive arthropods in highway rest areas in Hungary
15:00 – 15:50	<b>Vaughn Walton (Keynote talk): Advances in the knowledge of <i>Drosophila suzukii</i> physiology and ecology</b>
15:50 – 16:00	Closing ceremony