



New challenges in Plant Pathology between
sustainable crop production and climate change



SIPaV
Società Italiana di Patologia Vegetale
Italian Phytopathological Society

XXIX Congress of the Italian
Phytopathological Society (SIPaV)



New challenges in Plant Pathology between sustainable crop production and climate change

Trento, from 9th to 11th September

University of Trento
Department of Sociology
and Social Research



SIPaV
Società Italiana di Patologia Vegetale
Italian Phytopathological Society



UNIVERSITÀ
DI TRENTO



UNIVERSITÀ
DI TRENTO



Sponsors

MAIN SPONSOR



SILVER SPONSOR



BRONZE SPONSOR



Scientific Committee

Gerardo Puopolo
Ilaria Pertot
Paola Battilani
Laura Mugnai
Davide Giovanardi
Francesco Vinale

Organizing Committee

Gerardo Puopolo
Ilaria Pertot
Marco Camardo Leggieri
Laura Salvetti
Michele Perazzoli

Staff

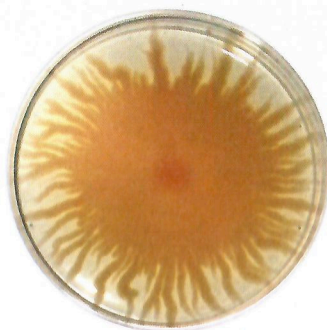
Alessio Martini
Amulya Jain Dinesh Kothari
Anna Aldrighetti
Anna Pedroncelli
Anna Smaldone
Bianca Vicelli
Greta Brussi
Sara Cremonesi
Sofia Montanari
Stefano Galvagni

Organizing Secretariat



www.orkata.it

event.unitn.it/sipav2024trento/



MONDAY, 9TH SEPTEMBER

11:00 - 14:00 Registration

13:00 - 17:00 Open Coffee

14:00 - 14:30 **XXIX SIPaV Congress Opening**

Flavio Deflorian - Rector of the University of Trento

Riccardo Rigon - Director of the Center Agriculture Food Environment (C3A)

Paola Battilani - President of the Italian Phytopathological Society (SIPaV)

14:30 - 16:00 **Italian Phytopathological Society: Look to the future**

Chairs: P. Battilani (SIPaV President) - L. Mugnai (SIPaV Vice-president)

SIPaV "Giovanni Scaramuzzi" 2023-2024 AWARD

Awards of Journal of Plant Pathology and SIPaV
"Fresh Ideas in plant health: the latest research from young plant pathologists"

S. Sarrocco

Euphresco III: Strengthening phytosanitary research programming and collaboration: from European to global phytosanitary research coordination

L. Mugnai

16:00 - 16:30 **Invited talk**

Assessing past and future climate change from planetary to regional scales

Dino Zardi - Department of Civil, Environmental and Mechanical Engineering, University of Trento, Italy

16:30 - 17:00 **Poster session n. 1 (posters from 1 to 96)**

17:00 - 18:30	First session – Molecular plant pathology Chairs: E. Baraldi – M. Reverberi
17:00 - 17:15	Flash talks from “Young Researcher in Training” Optimization of dsRNA uptake in <i>Stemphylium vesicarium</i> for Spray-induced gene silencing (SIGS) application <u>M. Karas</u> , F. Negrini, XQ. Chen, C. Minnelli, G. Mobbili, V. Sunico, A. Ricci, S. Sabbadini, B. Mezzetti, E. Baraldi Importance of endo-xylanase encoding genes in <i>Fusarium graminearum</i> enzymatic activity and pathogenicity <u>A. Panichi</u> , S. Tundo, S. Odorizzi, C. Castiglioni, R. Musetti, F. Favaron, L. Sella Innovative strategies to produce dsRNAs as a sustainable grapevine protection strategy against <i>Botrytis cinerea</i> <u>A. Narduzzo</u> , F. Favaretto, W. Chitarra, L. Nerva Evaluation of Italian flora biodiversity as a source of metabolites to inhibit <i>Pseudomonas syringae</i> virulence <u>G. Lancia</u> , G. Beggiato, V. Friz, S. Negri, D. Danzi, L. Avesani, F. Guzzo, E. Vandelle Metabolomics insights for the evaluation of safety, quality, and origin of wheat and selection of bioactive endophytes <u>L. Lascala</u> , M. Beccaccioli, I. Montaina, F. Colais, C. Manetti, M. Reverberi
17:15 - 18:30	Regular talks Exploring the genomic basis of host specificity in <i>Stemphylium vesicarium</i> <u>XQ. Chen</u> , F. Negrini, M. Karas, E. G. Kabeto, M. Menghini, M. Collina, R. Baroncelli, E. Baraldi

Distinct roles of Histone Methyltransferases *Acdot1* and *AcrmtA* in growth regulation, secondary metabolism and stress response in *Aspergillus carbonarius*

A. Agnusdei, A. González-García, D. Gerin, S. Pollastro, F. Faretra, L. González-Candelas, A.R. Ballester

Diversification of alkaloid production in *Trichoderma arundinaceum* IBT 40837 acquired by horizontal gene transfer of secondary metabolite biosynthesis cluster

I. Vicente, A. Staropoli, R. Baroncelli, D. Lotito, L. Di Costanzo, S. Vitale, R. Hermosa, G. Vannacci, S. Sarrocco, E. Monte, F. Vinale

Beyond the tree: A phylogenomic approach to linking species boundaries with functional traits in *Fusarium*

A. Villani, A. Susca, A. Menicucci, A. Prodi, L. Faino, A. Moretti, R. Baroncelli

Structural characterization of ViuB a siderophore interacting protein of *Erwinia amylovora*

S. Bharti, I. Polsinelli, I. Bento, T. Schneider, S. Baric, S. Benini

Induced resistance as a sustainable tool to manage postharvest decay of fresh fruit and vegetables and reduce food loss and waste

G. Romanazzi, D. Prusky

18:30 - 20:30	Welcome aperitif at the Departmente of Sociology and Social Research, University of Trento, Via Giuseppe Verdi 26, Trento
20:30 - 21:00	Walking tour and get together in Trento (optional, depending on the weather conditions)

TUESDAY, 10TH SEPTEMBER

- 9:00 - 11:30** **Second session – Epidemiology and plant disease diagnosis**
Chairs: E. Noris – M. Camardo Leggeri
- 9:00 - 9:30** **Invited talk**
Climate change impacts on crop pests and pathogens
Dan Bebber – Department of Biosciences, University of Exeter, United Kingdom
- 09:30 - 09:45** **Flash talks from “Young Researchers in Training”**
Botanic Garden of Catania, Dr Jekyll or Mr Hyde? Global warming matters
C. Bua, M. Riolo, S. Conti Taguali, R. Parlascino, G. Polizzi, G. Giusso del Galdo, A. Pane, F. Drizou, F. La Spada, S.O. Cacciola
- Impact of climate change-related factors on the effectiveness of *Aspergillus flavus* biocontrol**
M. Crosta, C. Cervini, A. Medina, P. Battilani
- Biocontrol of fungal disease affecting hops: green and sustainable alternatives for the Italian cultivation**
F. Modica, M. Cortiello, F. Bellameche, L. Prodi, E. Costi, C. Riccioni, F. De Marchis, A. Rubini, L. Brilli, E. Nunez Carmona, F. De Canio, E. Stefani, D. Giovanardi
- Tolerance/resistance assessment to ToBRFV infection in different local Sicilian tomato ecotypes**
G. Agrò, E. Yahyaoui, A. G. Caruso, C. M. La Marra, S. Davino, S. Bertacca, A. Ragona, S. Panno
- Long-reads Nanopore amplicon-sequencing for fast and precise identification of multiple microorganisms**
V. Crosara, G. Tatulli, V. Scala, M. Reverberi, N. Pucci, S. Loreti, L. Faino

- 09:45 - 10:30** **Regular talks**
Predicting the effects of climate change on the fitness and impact of native and alien *Heterobasidion* spp. in Europe
S. Cana, G. Lione, M. Garbelotto, P. Gonthier
- Botryosphaeriaceae and *Phytophthora* species contribute to *Fraxinus* decline in the Mediterranean area**
A. Benigno, C. Bregant, C. Aglietti, E. Falciani, M. Marcolongo, L. Montecchio, B. Tolio, B.T. Linaldeddu, S. Moricca
- New findings on the etiology and epidemiology of Phomopsis cane and leaf spot disease on grapevine**
G. Fedele, J. Armengol, T. Caffi, L. Languasco, N. Latinovic, J. Latinovic, M. León, G. Marchi, L. Mugnai, V. Rossi
- 10:30 - 11:00** **Coffee break**
- 11:00 - 12:00** **Regular talks**
Predictive models as decision support systems for grape downy, mildew powdery mildew and ocratoxin A wine contamination in South Italy
F. Dalena, A. Agnusdei, R. Coronelli, R.M. De Miccolis Angelini, F. Spataro, D. Gerin, S. Pollastro, G. Perrone, K. Gialluisi, C. Dongiovanni, M. Carrieri, M. Di Carolo, E. Del Prete, V. Buono, M. Corsi, P. Battilani, M. Camardo Leggeri, F. Faretra
- Quick and simple method for *Plenodomus tracheiphilus* detection by real-time Loop-mediated isothermal amplification (LAMP) assay in laboratory conditions**
E. Yahyaoui, S. Panno, A.G. Caruso, G. Agrò, P. Caruso, G. Licciardello, S. Di Silvestro, S. Davino

Progress on cross-protection of citrus trees from Citrus tristeza virus VT strain isolates causing decline

G. Licciardello, G. Scuderi, M. Russo, M. Bazzano, M. Bar-Joseph, A.F. Catara

Effects of sustainable agronomic measures on potato tuber dry rot under climate change

A. Catalani, G. Chilosi, M. Jasarevic, C. Morales-Rodríguez, E. Radicetti, R. Mancinelli

Release of *Venturia inaequalis* ascospores induced by sprinkler irrigation on sunny days results in a lower risk of primary infections

D. Prodorutti, R. Bugiani, C. Rizzi, E. Collier, N. Vendrame, D. Zardi, A. Stensvand, V. Philion, I. Pertot

12:00 - 14:00 **Poster session n. 1 (posters from 1 to 96)**

12:30 - 14:00 **Light lunch**

14:00 - 16:30 **Third session – Innovation in plant-microbe interactions**

Chairs: V. Catara – R. Marra

14:00 - 14:30 **Invited talk**

Cyclic lipopeptide producers in the *Pseudomonas asplenii* and *corrugata* subgroups: mutualists or pathogens?

Monica Höfte - Department of Plants and Crops, University of Ghent, Belgium

14:30 - 14:45 **Flash talks from young researchers in training**

Exploring the role of rubellin D in *Ramularia collo-cygni* virulence during interaction with barley

E. Balducci, L. Roehrig, F. Tini, G. Beccari, M. Sulyok, N.D. Havis, P. Benincasa, L. Covarelli

Identification of QTLs associated with fire blight resistance in European pear genotypes

F. Pacini, L. Bergonzoni, L. Dondini, S. Tartarini, A. Bertaccini

Exploring TAL effectors diversity in common bacterial blight causative agents as a tool to identify targets for improving resistance in common bean

A. Gaiti, E. Avite, C. Pizzatti, M. Saracchi, D. Bulgari, P. Cortesi, C.M. Pozzi, A. Kunova, G.M. Balestra, M. Pasquali

Eucalyptus leaf aqueous extract: a biopesticide for bacterial spot disease in tomato plants

M. Pinto, C. Soares, T. Andreani, F. Fidalgo, F. Tavares

The use of microbial based inoculants for enhancing the salinity tolerance of tomato plants: preliminary results

A. Esposito, F. Vitali, M. Aragona, V. Scala, S. Mocali

14:45 - 16:15

Regular talks

Deciphering Kiwifruit Vine Decline Syndrome: insights into microbial communities, gene expression, and hormonal dynamics

A. Cardacino, L. Pereira-Dias, P.R. Oliveira-Pinto, C. Santos, G.M. Balestra

Role and impact of *Xylella fastidiosa* subsp. *pauca* on endophytic communities in resistant and susceptible olive cultivars

M. Vergine, F. Vita, M. De Pascali, L. De Bellis, A. Luvisi

Gene expression dynamics in *Monilinia fructicola* and *Prunus persica* during the battle for infection revealed by dual RNA-Seq analysis

R.M. De Miccolis Angelini, D. Di Cosmo, M. Crudele, P.R. Rotondo, M. Romito, S. Pollastro, L. Landi, F. Faretra

Foliar application of a *Streptomyces* sp. on tomato plants: an insight into the induction of defence-related genes through RNA-Seq analysis

F. Bellameche, S. Cassanelli, F. Caradonia, M. Cortiello, S. Perez, E. Stefani, D. Giovanardi

Role of the chitin-binding domain (CBD) of a grapevine class IV chitinase against *Botrytis cinerea*

A. Bolzonello, S. Tundo, N. Poussereau, S. Vincenzi, M. Marangon, I. Battisti, L. Sella, F. Favaron

Find a match: isolated versus molecular-detected oomycetes involved in the kiwifruit vine decline syndrome

C. Bernardini, S. Mosca, A. Malacrinò, P. Bianco, M. Zillet, M. Martini, L. Schena, P. Ermacora

Root exudates from stressed plants differentially regulate plant interactions with fungal pathogens and beneficial microorganisms

S. Vitale, M. Papaiani, M. Ranesi, I. Di Lelio, F. Pennacchio, S.L. Woo, M. Lorito, N. Lombardi

16:15 - 16:45 Coffee break

16:15 - 18:30 Poster session n. 2 (posters from 97 to 194)

17:00 - 18:30 General assembly of SIPaV Members

20.30 Social Dinner at Grand Hotel Trento, Piazza Dante, 20, Trento

WEDNESDAY, 11TH SEPTEMBER

9:00 - 12:15 **Fourth session – phytobiome and sustainable plant disease management**

Chairs: S. Sarrocco – M. Pasquali

9:00 - 9:30 **Invited talk**

The plant microbiome: from rhizosphere to seeds and applications to improve crop performance

Angela Sessitsch – Austrian Institute of Technology (AIT), Austria

09:30 - 09:45 **Flash talks from “Young Researchers in Training”**

Evaluating the potential of extreme environments for the isolation of biocontrol agents

M. Lucci, G. Firrao, A. Di Francesco

***Aeromonas* sp.: a plant growth-promoting bacterium (PGPB) strain with biocontrol potential against *Phytophthora infestans* on tomato plants**

C. Antonelli, D. Nicolai, N. Benfradj, A.M. Vettrai

Assessment of the effectiveness of natural and biological means to control of phytopathogenic *Fusarium* spp. on wheat

T. Conte, M.G. Morea, A. Libutti, A. Carlucci

Can the combined use of the beneficial isolates *Trichoderma gamsii* T6085 and *Clonostachys rosea* IK726 improve the control of *Fusarium graminearum* on wheat?

✱

A. Petrucci, M. Cesarini, I. Vicente, L. Merani, B. Jensen, D.B. Collinge, S. Sarrocco

Selection and evaluation of antagonistic yeasts in the control of strawberry postharvest rots and effect on the fruit microbiome

G. Remolif, M. Garelo, D. Spadaro

09:45 - 10:45

Regular talks

From seed to spike: exploring biological control strategies to mitigate mycotoxin contamination in durum wheat affected by *Fusarium* diseases

E. Cappelletti, D. Alberoni, M. Calì, G. Amaral Carneiro, F. Rabbi, D. Di Gioia, A. Prodi

From apple flowers to control fire blight: new potential biocontrol agents of *Erwinia amylovora*?

A. Pedroncelli, L. Franceschi, M.K.M. Marian, G. Puopolo

Unrevealing the potential of bacterial isolates obtained from grapevine rhizosphere

E. Soriato, C. Tezza, M. Casagrande, D. Danzi, R. Shmulevitz, G.B. Torielli, F. Spinelli, M.C. Santos, E. Vandelle

Beneficial microbes application on tomato plants significantly improves the accumulation of metabolites with nutraceutical value

D. Lotito, M.I. Prigigallo, G. Iacomino, C. Gigliotti, G. Bubici, A. Staropoli, M. Lorito, F. Vinale

10:45 - 11:15

Coffee break

10:45 - 11:15

Poster session n. 2 (posters from 97 to 194)

11:15 - 12:15

Regular talks

New potential challenges to manage fungal diseases by *Streptomyces* strains

A. Carlucci, T. Conte, M.G. Morea, G. Ricciardi, F. Lops

***Trichoderma gamsii* ICC080 and *Trichoderma asperellum* ICC012 (active ingredients of the commercial Remedier®) to control *Fusarium* head blight (FHB) on wheat**

M. Cesarini, A. Petrucci, E. Hotaj, G. Venturini, R. Liguori, S. Sarrocco

Effectiveness of a novel integrated solarization system to control soilborne pathogens of strawberry and effects on non-target microorganisms in Northern Italy

F. Aloj, V. Battaglia, G. Dardani, M. Garelo, M. Cermola, P. Mormile, D. Spadaro, E. Lahoz, V. Guarnaccia

Antifungal effect of stilbene deoxyrhapontigenin against rice blast pathogen

S. Ghosh, C. Pinna, D. Dozio, C. Pizzatti, S. Princiotta, P. Cortesi, S. Dallavalle, A. Pinto, A. Kunova

12:15 - 12:45

Awards for Best poster and oral presentations

P. Battilani (SIPaV President) – G. Puopolo

12:15 - 12:45

Closing of SIPaV congress 2024

P. Battilani (SIPaV President) – G. Puopolo

12:15 - 13:00

Farewell

Bio Ag Alliance
(Novozymes +
Monsanto)

Scan the QR code to read
the Book of Abstracts



Info

Congress venue:

University of Trento, Department of Sociology and Social Research
Via Giuseppe Verdi 26, Trento

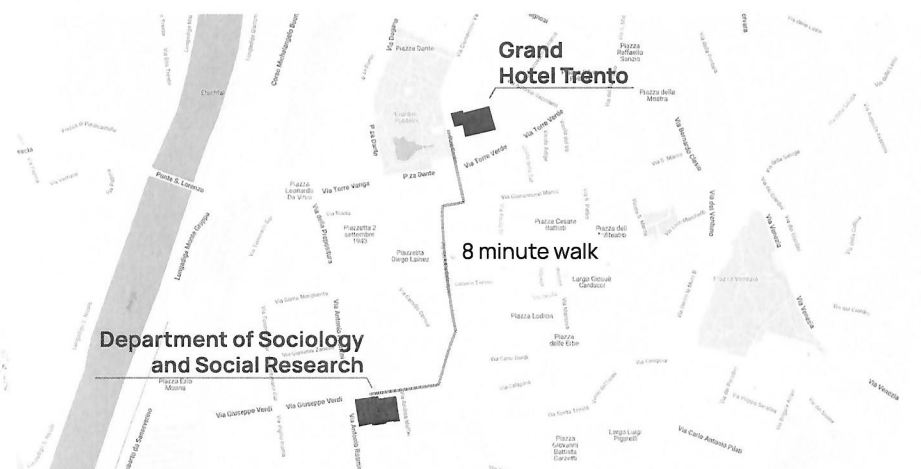
Opening hours Organizing Secretariat:

Monday 9th from 11 a.m. to 6.30 p.m., Tuesday 10th from 8.30 a.m. to 6.30 p.m.
and Wednesday 11th from 8.30 a.m. to 1 p.m.

Social dinner

10th September 2024 - 8.30 pm

Grand Hotel Trento, Piazza Dante, 20, Trento



Partner restaurants

On Wednesday 11 September, it is available an affiliation in some restaurants/
bars in TRENTO.

By showing your congress badge you will be entitled to a discounted lunch
menu at the following restaurants.

Il Simposio Bar Restaurant

Via Antonio Rosmini, 19

Al Duomo Pizzeria Restaurant

Via Giuseppe Verdi, 77

Rosa D'Oro Restaurant

Piazza Santa Maria Maggiore, 21