

# CURRICULUM VITAE

## Denise Vicino



### PERSONAL DETAILS

Name and Surname: Denise Vicino  
Date of birth: March 05, 1985  
Languages: Italian, English  
Contact: denise.vicino@cet-electronics.com

### CURRENT POSITION

2006- today

CET Electronics S.N.C. di Vicino Nicola & C., Zenson di Piave (TV)

Role: member (since 2006), co-CEO (since 2017), responsible of agri-tech R&D projects

Main competence: data collection and data analysis, test and experiment planning, project management.

Main projects managed in the Agritech sector:

- PVSensing
- IRRIVISION
- Rovitis 4.0
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2013- today

Terre Grosse soc. agricola s.s.

Role: part time collaboration for the management of the vineyards and the use of precision farming technology

### MAIN STUDIES

2013 - 2015

**Ph.D. in Physics**, Department of Physics and Astronomy, Università degli studi di Padova, Padova, Italy.

Research subject

*Beyond the Standard Model Physics, the flavour problem in Extra Dimensions and Grand Unified Theories (GUT)*

2007 - 2012 **Master Degree (Physics)**, Università degli studi Padova, Padova, Italy.

Evaluation: 110/110 Cum Laude

Thesis title *Flavour violation in 5-dimensional models.*

2004 - 2007 **Bachelor Degree (Astronomy)**, Università degli studi di Padova, Padova, Italy.

Evaluation: 110/110 Cum Laude

Thesis title: *The photon wave function in the quantization of the electromagnetic field.*

**Attended schools, workshops, conferences**

#### In physics sector:

“DaMeSyFla meeting”, 2015; “Nu@Fermilab 2015”; “Invisibles” 2013, 2014 & 2015 schools and workshops; DISCRETE 2014 4th Symposium on prospects in the Physics of Discrete Symmetries; ; “GGI Lectures on the theory of fundamental interactions”, 2014; “Ph.D Lectures on theoretical physics”, 2013; “ICTP school on Particle Physics”, 2013.

#### In the agricultural and precision farming sector:

- “Future IPM 3.0”, the largest international conference on “Pesticide Use and Risk Reduction for future IPM - integrated pest management - in Europe”, Riva del Garda, in 2017;
- “Perspectives on the use of modelling approaches in the implementation of the European Directive on the sustainable use of plant protection products”, conference by GRIMPP (Gruppo Ricerca Italiano Modelli Protezione Piante), in Brescia, 2017;
- “Oenological microbiology” course by Vinidea, 2017
- “Drip irrigation of agricultural crops” course in collaboration with the University of Bologna and Irritrol System Europe, in Bologna, 2018;
- Enoforum, XI edition in Vicenza, 2019;
- Enoforum Web Conference 2021;
- CONAVI, IX National congress in Viticulture in Conegliano, 2022;
- AIAM, XXIV National congress in Agrometeorology in Cagliari, 2022;
- “Bilancio Fitosanitario Viticolo” organized by CREA-VE, 2017, 2018, 2019, 2021, 2022, 2024
- INTERNATIONAL ADVANCED SCHOOL IN AGRICULTURAL METEOROLOGY, 4th edition in Conegliano, 2024

## LIST OF SEMINARS/TALKS PRESENTED

#### In physics sector:

“Flavor scenarios from 5D SO(10): order and anarchy interplay”, Talk at Nu@fermilab, (24 July 2015);

“The flavor problem in SO(10) GUT: a solution from extra dimensions” at Invisibles15 Workshop:

“Invisibles Meets Visibles”, (24 July 2015).

“Order and Anarchy in a 5D SO(10)” Talk at DISCRETE 2014, 4th Symposium on prospects in the Physics of Discrete Symmetries (Dec 4 2014)

#### In the agricultural and precision farming sector:

##### Held lectures:

- Open-field lecture about the use of sensors for disease forecasting and experimental protocols, with students of the course in plant pathology, University of Padova, organised at CREA-VE's experimental vineyard site, in 2018.
- Lecture about Innovative sensors for a Downy mildew model, within the course “Organic viticulture” (Prof. E. Peterlunger), third year of the Bachelor degree in Viticulture and Oenology, University of Udine, in 2020.
- Open-field lecture about the use of sensors for the vineyard management, disease forecasting and irrigation control, with students of the course in plant pathology, University of Padova, organised at CREA-VE's experimental vineyard site, in 2022.
- Lecture about Innovative technologies for forecasting models and vineyard management, within the course “Technologies for low input in agricultural systems” (Prof. M. Bietresato), Master in Environmental Management of Mountain Areas, University of Bolzano, in 2022.
- Veneto Agricoltura - Corso di formazione "Fare innovazione collaborativa: esperienze italiane in tema di Gestione dell'acqua", novembre 2023
- Lecture about novel technologies at the service of disease forecasting models in vineyard, within the course “APPROCCI E STRUMENTI INNOVATIVI NEL CONTROLLO DELLE MALATTIE DELLA VITE” (Prof. L. Mugnai), first year of the Master degree in Sustainable innovation in viticulture and oenology, University of Pisa, in 2022, 2023 and 2024.

Other talks given at:

- Agronomic consultancy event by Extenda Vitis, 2017
- Bilancio Fitosanitario Viticolo, 2018
- Enovitis in campo, 2019
- Vite in campo, 2019
- “Nova agricoltura” event, 2019
- GESOVIT open field event, 2020
- “Demo farm day” event by Astra, 2020
- ATLAS Demo Day, 2021
- GESOVIT webinar, 2021
- “Agriculture 5.0” INNOSAP event, 2021
- Eima conferences, 2021
- HFarm seminar, 2022
- Enovitis in campo, 2022
- AIAM conference, 2022 (poster)
- ATLAS Demo Day, 2022
- “Demo farm day” event by Astra, 2022
- PVsensing events in 2018, 2019, 2020
- Irrivision events in 2019, 2021, 2022
- Fieragricola TECH, 2023
- GRAPEPRODIGI at RIVE exposition, 2023
- EGER WINE MEETUP, 2024
- INNOSAP event, Fieragricola Tech 2025

## LIST OF PUBLICATIONS

In physics sector:

### Articles Published in Peer-reviewed Journals:

- **“A realistic pattern of fermion masses from a five-dimensional SO(10) model”**

F. Feruglio, K. M. Patel and D. Vicino.

arXiv:1507.00669 [hep-ph]

10.1007/JHEP09(2015)040

JHEP **1509**, 040 (2015)

- **“Order and Anarchy hand in hand in 5D SO(10)”**

F. Feruglio, K. M. Patel and D. Vicino.

arXiv:1407.2913 [hep-ph]

10.1007/JHEP09(2014)095

JHEP **1409**, 095 (2014)

- **“Photon wave function: A covariant formulation and equivalence with QED”**

F. Tamburini and D. Vicino.

arXiv:0807.3902 [quant-ph]

10.1103/PhysRevA.78.052116

Phys. Rev. A **78**, 052116 (2008)

### Conference Proceedings:

- **“An ordered anarchy from 5D SO(10)”**

F. Feruglio, K. M. Patel, D. Vicino

J.Phys.Conf.Ser. 631 (2015) 012026(2015-07-30)

DOI: 10.1088/1742-6596/631/1/012026

Conference: C14-12-02.1

- **“Order and Anarchy in 5D SO(10)”**

D. Vicino

Nucl.Part.Phys.Proc. 265-266 (2015) 317-319(2015-10-06)

DOI: 10.1016/j.nuclphysbps.

### In the agricultural and precision farming sector:

- Gaiotti, F., Masiero, L., Marcuzzo, P., Cagnin, A., Minervini, M., Vicino, D., Vicino, N. (2023) A stereo-imaging system to assess plant water status in kiwifruit and grapevine: recent advances. II International Symposium on Precision Management of Orchards and Vineyards for publication in Acta Horticulturae.
- Gaiotti, F., Cagnin, A., Marcuzzo, P., Minervini, M., Belfiore, N., Vicino, N. Vicino, D., Bortolini, L.. (2023) - Vineyard water status assessment using a new 3D- video-sensor-system. Symposium on Irrigation of Horticultural Crops, South Africa, for publication in Acta Horticulturae.
- Biocca, Marcello & Aiello, Letizia & Baldoin, Cristiano & Bolzonella, Cristian & Bugin, Giuseppe & Gallo, Pietro & Gardiman, Massimo & Meneghetti, Francesco & Pallottino, Federico & Pantano, Giorgio & Pantano, Matteo & Rakun, Jurij & Lepej, Peter & Vicino, Denise & Vicino, Nicola & Zanzotto, Alessandro. (2022). Rovitis 4.0: An Autonomous Robot for Spraying in Vineyards. International Conference on Safety, Health and Welfare in Agriculture and Agro-food Systems10.1007/978-3-030-98092-4\_19.
- Bolzonella, Cristian & Zanzotto, Alessandro & Vicino, Denise & Vicino, Nicola & Mian, Giovanni & buso, edoardo & tonon, matteo & meneghetti, francesco & leoni, alessandro & basso, ombretta & belvini, paolo & pizzolato, angelo & pascarella, giovanni & fogal, jacopo & marcon, luana & pastro, mattia & traversari, giacomo & gasparetti, patrizio & borselli, stefano. (2022). Progetto PV Sensing: sensoristica innovativa per la gestione dei modelli previsionali in vigneto. Il corriere vinicolo 11: 35-36.
- Gaiotti et.al (2022) Un sistema di visione artificiale per l'irrigazione di precisione- A vision system for precision irrigation. Il corriere vinicolo 35: 31-33.
- Tacconi, G., Tonon, M., Marcuzzo, P., Belfiore, N., Minervini, M., Rigato, L., Vicino, D., Vicino, N. and Gaiotti, F. (2022). A novel system for assessing kiwifruit water status by AI and 3D image analysis. Acta Hortic. 1332, 231-238 DOI: 10.17660/ActaHortic.2022.1332.31
- Belvini, P., Pascarella, G., Pizzolato, A., Vicino, D., Vicino, N. (2017). Gelate in Veneto. l'Enologo N.7/8 Luglio/Agosto 2017.

Zenson di Piave, 14/03/2025

