

Curriculum Vitae

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Assist. Prof. Sergio Angeli



Affiliation

Faculty of Science and Technology
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Current position

Tenured Assistant Professor of General and Applied Entomology and Apiculture at the Faculty of Science and Technology, Free University of Bozen-Bolzano, Italy, since June 2009.

Departmental and Institutional Coordinator for the Erasmus Programs for the Free University of Bozen-Bolzano, Italy.

Member of the Study Council of the PhD Program "Mountain Environment and Agriculture", Faculty of Science and Technology, Free University of Bozen-Bolzano, Italy.

Member of the Study Council of the Master Program "International Horticultural Science", Joint Master of the Free University of Bozen-Bolzano and the University of Bologna, Italy.

Member of the Study Council of the B.Sc. Program "Agricultural and Agro-Environmental Sciences", Faculty of Science and Technology, Free University of Bozen-Bolzano, Italy.

Member of the Municipal Council of Croviana, Trento province, Italy (elected for the period 01/06/2010 - 01/06/2020).

Personal data

Birthday: 11 July 1972; Place of birth: Cles (TN), Italy; Nationality: Italian; Marital status: married, 1 child.

Education

- **Assistant Professor** Department of Forest Zoology and Forest Conservation, Göttingen University, Germany.
2004 – 2009 (5 years)
- **Assistant Professor** Institute of General and Systematic Zoology, Giessen University, Germany.
2002 – 2004 (2 years)
- **Post-Doc** Elite University "Sant'Anna School of Advanced Studies" of Pisa, Italy.
2001 – 2002 (1 year)
- **PhD** Title: "ChemoSensory Proteins (CSP): a new class of proteins involved in insects chemoreception", Sant'Anna School of Advanced Studies of Pisa, Italy. 5 ISI papers included. Final mark: 100/100 *cum laude* (Italian maximal score).
1997 – 2000 (3 years)

- **Bachelor + Master** 1991 – 1996 (5 years) Faculty of Agricultural Sciences, Pisa University, Italy. Final mark: 110/110 *cum laude* (Italian maximal score).

Professional qualification

- **Agronomist** June 1998 Examination of the Italian National Board for Professional Qualification as "Agronomo".

Present teaching

- **"Agricultural and Forest Entomology"**, Faculty of Science and Technology, Free University of Bolzano (since 2009). Compulsory course for the Bachelor students of the Agricultural and Agro-Environmental Sciences, 6 ECTS. Student course evaluation "Am I generally satisfied with the teaching of the subject", positive answer >80%
- **"Apiculture"**, Faculty of Science and Technology, Free University of Bolzano. Elective course for Bachelor students of the Agricultural and Agro-Environmental Sciences, 4 ECTS. Student course evaluation "Am I generally satisfied with the teaching of the subject", positive answer >90%.
- **"Applied entomology in horticultural crops"**, Faculty of Science and Technology, Free University of Bolzano. Compulsory course for Master students of the International Horticultural Science, 3 ECTS. Student course evaluation "Am I generally satisfied with the teaching of the subject", positive answer >80%.

Previous teaching experiences (University of Göttingen, Germany, 2004-2009)

"**Tropical Forest Protection and Agroforestry**", elective course for Master students; "**Biometric data analysis and forest dynamics**", compulsory course for Master students of the International Tropical Forestry; "**Selected chapters of sensory ecology**", elective course for Master students; "**Forest Zoology and Forest Protection I**", compulsory course for Bachelor students; "**Forest Zoology and Forest Protection II**", compulsory course for Bachelor students; "**Development of a forest region**", compulsory course for Master students.

Guest lecturer and researcher

- December 2012 Guest professor with a fellowship offered by the Institute of Forest Protection, **Zhejiang Agricultural and Forestry University, China** (10 days).
- October 2008 Visiting scientist with **DAAD fellowship** to visit the agricultural and cultural institutions of **Iran**, under the German/Iranian academic visiting program (15 days).
- May 2008 Guest researcher with a fellowship offered by the ASEM-DUO Program, **Chiang Mai University, Thailand** (1 month).
- May 1999 Visiting assistant in research at **Yale University**, Department of Molecular, Cellular, and Developmental Biology, **USA** (1 year).

Awards and academic honors

- Habilitation National Habilitation as Full Professor in the competition area 07/D1 (Plant Pathology and Entomology), scientific disciplinary sector AGR/11 (General and Applied Entomology) (2017 - 2023).
- Habilitation National Habilitation as Associate Professor in the competition area 07/D1 (Plant Pathology and Entomology), scientific disciplinary sector AGR/11 (General and Applied Entomology) (2014 - 2020).
- PhD fellowship Winner of a 3-years PhD fellowship at the Sant'Anna School of Advanced Studies of Pisa, Italy (1997 - 2000).
- Bachelor + Master fellowship Winner of a 5-years fellowship as internal college student at the Sant'Anna School of Advanced Studies of Pisa, Italy (1991 - 1996).

Supervised theses and postdocs

- **Bachelor theses** **Erik Endrizzi** (2018), **Andrea Simoncelli** (2018), **Lisbeth Marie Bauer** (2016), **Michael Haller** (2016), **Joseph Fink** (2015), **Sieglinde Mair** (2013), **Nadia Ueberegger** (2013), **Irene Castellan** (2012), **David Hofer** (2012), **Stefan Nicolodi** (2012), **Christian Kofler** (2012), **Valentino Giacomuzzi** (2011).
- **Master theses** **Ochan Joseph Lazarous** (2018), **Giacomo Barison** (2017), **Luca Gambarotto** (2017), **Alessandro Brambilla** (2016), **Irene Castellan** (2015), **Stefano Nones** (2014), **Giorgia Girod** (2014), **Lara Reinbacher** (2014), **Nicolò Dall'Aglio** (2013), **Giacomo Agosti** (2012), **Leopoldo Busa** (2011), **John Abraham** (2009), **Karthi Balakrishnan** (2009), **Christian Passeri** (2008).
- **PhD theses**
 - **Zaid George Abdallah Badra** "Chemical and functional characterization of Induced volatile organic compounds released after aphid attack in apple orchards and their role as attractants of aphid natural enemies", **2017-2020**, Free University of Bozen-Bolzano.
 - **Irene Castellan** "An innovative approach for the management of spotted wing drosophila (*Drosophila suzukii*): improve crop protection using an environmentally friendly formulation", **2017-2020**, Free University of Bozen-Bolzano.
 - **Michele Preti** "New strategies in organic pest insect control by the characterization of bioactive plant volatile organic compounds of agricultural crops", **2017-2020**, Free University of Bozen-Bolzano.
 - **Valentino Giacomuzzi** "Tritrophic interactions of apple trees, pest insects and their natural enemies", **2014-2017**, Free University of Bozen-Bolzano.
 - **Umberto Salvagnin** "Genetic engineering manipulation of terpene biosynthesis in *Vitis* for the control of grapevine moth, *Lobesia botrana*", **2014-2017**, Free University of Bozen-Bolzano in collaboration with Fondazione E. Mach of San Michele all'Adige.
 - **Thanapon Kitpot**, "Development of a novel colorimetric indicator for detecting rancidity in the Thai-crispy pork rind 'Kaeb Moo', **2014-2017**, in collaboration with Chiang Mai University (Thailand).
 - **Praetinee Puttamayutanon** "Characterization of tropical Thai honey obtained from different bee species", **2013-2016**, in collaboration with Chiang Mai University (Thailand).
 - **Maria Celeste Fernandez Ferrari**, "Parasite-host interaction between *Varroa destructor* and *Apis* spp.", **2012-2015**, Free University of Bolzano.
 - **John Abraham**, "Chemoeology of plant-insect interactions", **2011-2014**, Free University of Bozen-Bolzano.
- **Postdocs**
 - **Riccardo Favaro**, "Sublethal doses of neonicotinoid pesticides on honeybees: effects on odour perception, memory and colony behaviour", **2017-20**, Free University of Bozen-Bolzano.

- **Hannes Schuler**, "A new biological control method of *Varroa destructor* and its economic impact assessment", **2013-14**, Free University of Bozen-Bolzano.
- **Silvia Vitagliano**, "Chemoecological investigations of *Drosophila suzukii*: a new exotic pest attacking cherry and small berry fruits", **2012-13**, Free University of Bozen-Bolzano.

Editorial board of international and national journals

- Bulletin of Insectology (Italy), ISSN 1721-8861, 12/2015
- SM Journal of Biology (USA), since 07/2015
- Scienze e Ricerche (Italy), ISSN 2283-5873, 06/2015
- Food and Applied Bioscience Journal (Thailand), ISSN 2286-8615, 08/2012

Referee for international journals

PLOS ONE, Journal of Insect Physiology, Journal of Pest Science, Agricultural and Forest Entomology, Journal of Applied Entomology, Chemoecology, Journal of Economic Entomology, Pest Management Science, Bulletin of Insectology, Revista Colombiana de Entomología, Journal of Agriculture and Rural Development in the Tropics and Subtropics, Journal of Asia-Pacific Entomology, Applied Microbiology and Biotechnology, Applied Microbiology and Technology, Forest@ - Rivista di Selvicoltura ed Ecologia Forestale, African Journal of Biotechnology, Food and Applied Bioscience Journal, Food Research International, Chiang Mai Journal of Science, Trees - Structure and Function, Italus Hortus.

Referee for national and international funding agencies

- 2016 - VQR 2011-2014, National Agency for the Evaluation of Universities and Research Institutes
- 2015 - REPRISE, Reviewers for Italian Scientific Evaluation
- 2012 - VQR 2004-2010, National Agency for the Evaluation of Universities and Research Institutes
- 2011 - FIRB - Futuro e Ricerca 2010
- 2007 - DAAD - German Academic Exchange Service 2007

Memberships

- Fellow of the Italian Society of Entomology (**ISE**), since 2004
- Fellow of the German Society for General and Applied Entomology (**DGaaE**), since 2005
- Fellow of the European Chemoreception Research Organisation (**ECRO**), since 2010
- Fellow of the Società Italiana di Selvicoltura ed Ecologia Forestale (**SISEF**), since 2013
- Fellow of the International Organisation for Biological Control (**IOBC**), since 2013

Editorial board of conferences (since 2010)

- 2017 – VI Congresso Nazionale di Apicoltura Urbana”, Free University of Bozen-Bolzano (Italy), 28 October 2017.
- 2017 – FUTURE IPM IN EUROPE - The largest international event on “sustainable crop production and protection” PalaCongressi Riva del Garda (Italy), 15-20 October 2017.
- 2015 - Workshop: “IPM per un’agricoltura sostenibile, le tendenze future - IGM zukünftige Trends für eine ökologische Nachhaltigkeit”, Free University of Bozen-Bolzano (Italy), 11 December 2015.
- 2015 - Workshop: “Ripartire dalle api - Strategie di collaborazione ambientale”, Fondazione Edmund Mach of San Michele all’Adige (Italy), 13 November 2015.
- 2014 - Workshope: “Quali prospettive per l’apicoltura di montagna? - Perspektiven der Berg Imkerei?”, Free University of Bozen-Bolzano (Italy), 8 November 2014.
- 2013 – II Thai-Italian Conference "Food and Agriculture for Sustainable Upland Development", Chiang Mai University (Thailand), 2-3 December 2013.
- 2011 - I Thai-Italian Conference “Food Quality, Innovation and Sustainability in Agriculture”, Free University of Bozen-Bolzano (Italy), 6-9 June 2011.
- 2010 - International Workshop on “Invasive Exotic Species: Insects, Plants and other Organisms”, Free University of Bozen-Bolzano (Italy), 14 December 2010.

Organization of educational excursions

- 2016 – International European Excursion, entitled “Interdisciplinary landscape ecology and sustainable agriculture”, in cooperation with the Chiang Mai University (Thailand), 20 – 27 February 2016.
- 2014 - Excursion to the company Bioplanet, Cesena, Italy.
- 2010 - Excursion to the company Bayer Crop Science AG, Monheim am Rhein, Germany.

Invited speaker at conferences and seminars since 2002 (selected list)

- 2-5 February 2016 Guest speaker for the III International Conference on Food and Applied Bioscience, Chiang Mai, **Thailand**.
- 30 March - 2 April 2014 Guest speaker for the International Horticulture Winter School at the Technical University of Munich, **Germany**.
- 24 February 2014 Guest speaker at the Institute of Ecology, University of Innsbruck, **Austria**.
- 1-3 September 2010 Keynote plenary lecture at the 8th National Postharvest Technology Conference “Postharvest Technology: Innovation for the Future”, Chiang Mai University, **Thailand**.
- 4 May 2010 Guest speaker for the “PhD Day” of the Elite University “Sant’Anna School of Advanced Studies” of Pisa, **Italy**.
- 27 October 2008 Guest speaker for the “Series of Lectures”, Free University of Bolzano, **Italy**.
- 22 April 2008 Guest speaker at the PhD School “Molecular sciences and agricultural, food and environmental biotechnology”, University of Milano, **Italy**.

- 18 March 2008 Guest speaker at the Faculty of Agriculture, University of Padova, **Italy**.
- 5 February 2004 Guest speaker at the Faculty of Forest Science, University of Göttingen, **Germany**.
- 19 November 2003 Guest speaker at the Institute of Zoology, University of Neuchâtel, **Switzerland**.
- 6 June 2002 Guest speaker at the Institute of General and Systematic Zoology, University of Giessen, **Germany**.
- 8 May 2002 Guest speaker at IACR-Rothamsted, Biological Chemistry Division, **United Kingdom**.

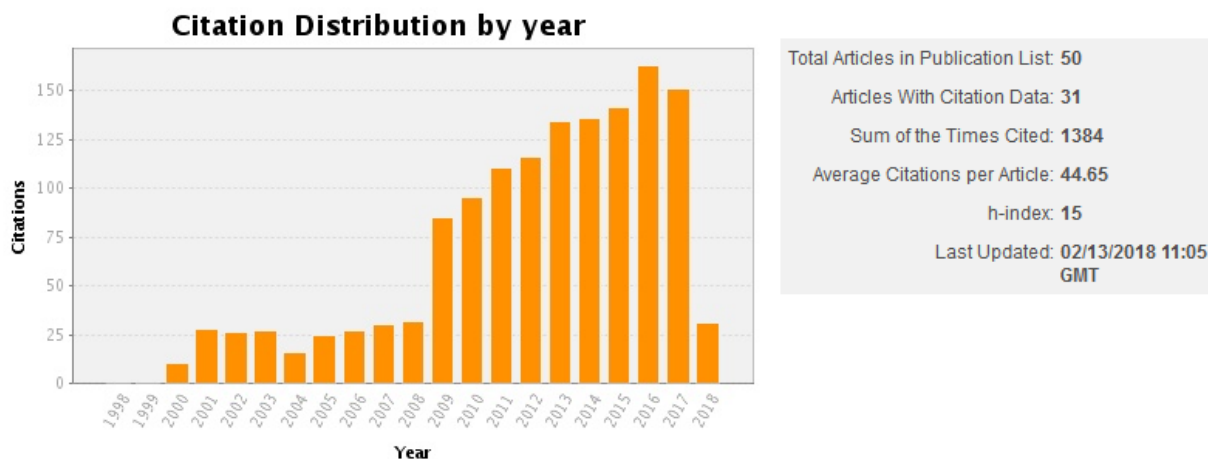
Selection of attended congresses

- XXV CNI, Italian Congress of Entomology, 20-24 June 2016, Padova, **Italy**.
- XXIV CNI, Italian Congress of Entomology, 9-18 June 2014, Orosei (NU), **Italy**.
- IOBC Meeting "Future IPM in Europe", 19-21 March 2013, Riva del Garda (TN), **Italy**.
- III World Symposium of Biological Beekeeping, 4-7 March 2014, Castel San Pietro Terme (BO), **Italy**.
- 43th International Apimondia Congress, 29 September - 4 October 2013, Kiev, **Ukraine**.
- Conference "Future IPM in Europe", 19-21 March 2013, Riva del Garda (TN), **Italy**.
- XXIV International Congress of Entomology, 19 – 25 August 2012, Daegu, **South Korea**.
- VIII National Postharvest Technology Conference "Postharvest Technology: Innovation for the Future", 1-3 September 2010, Chiang Mai, **Thailand**.
- XVII DGaaE (=German Society for General and Applied Entomology) Entomology-Meeting, 16-19 March 2009, Göttingen, **Germany**.
- XXII ISCE, International Society of Chemical Ecology Annual Meeting, 15-19 July 2006, Barcelona, **Spain**.
- IX ESITO, European Symposium on Insect Taste and Olfaction, 24-30 September 2005, Villasimius, **Italy**.
- XX CNI, Italian Congress of Entomology, 12-18 June 2005, Assisi, **Italy**.
- XV DGaaE (=German Society for General and Applied Entomology) Entomology-Meeting, 21-24 March 2005, Dresden, **Germany**.
- XII SIP, Symposium Insect-Plant Relationships, 7-12 August 2004, Berlin, **Germany**.
- IX International Congress 2003 of the International Society for Developmental and Comparative Immunology, 29 June-4 July 2003, St Andrews, **United Kingdom**.
- XCVI Annual Meeting of the German Zoological Society, 9-13 June 2003, Berlin, **Germany**.
- VII International Workshop on Sawflies, 28 May-1 June 2003, Ilfeld, **Germany**.
- LATSIS Symposium 2003 on Evolution, Immunity and Infectious Disease, 22-24 May 2003, Zürich, **Switzerland**.

Research keywords

Plant-insect interactions, olfaction coding of insects, insect semiochemicals and chemoeology, odorant binding proteins (OBPs), chemosensory proteins (CSPs), gas chromatography-mass spectrometry (GC-MS), electroantennography, invasive insects, tropical entomology, volatile organic compounds of plant, biosensors, apiculture, bee-Varroa interactions, insecticides, pest insects.

Citation metrics (data from ISI-Web of Knowledge)



Original articles in peer-reviewed international journals

- P35) Reinbacher L., Fernández Ferrari M.C., **Angeli S.**, Schausberger P. (2018) Effects of *Metarhizium anisopliae* on host choice of the bee-parasitic mite *Varroa destructor*. **Acarologia**, 58 (2): 287-295. DOI: 10.24349/acarologia/20184241.
- P34) Salvagnin U., Malnoy M., Thöming G., Tasin M., Carlin S., Martens S., Vrhovsek U., **Angeli S.**, Anfora G. (2017) Adjusting the scent ratio: using genetically modified *Vitis vinifera* plants to manipulate European grapevine moth behaviour. **Plant Biotechnology Journal**, 16: 264–271. DOI: 10.1111/pbi.12767.
- P33) Giacomuzzi V., Cappellin L., Nones S., Khomenko I., A. Knight, Biasioli F., **Angeli S.** (2017) Diel rhythms in the volatile emission of apple and grape foliage. **Phytochemistry**, 138: 104:115. DOI: 10.1016/j.phytochem.2017.03.001.
- P32) Giacomuzzi V., Mattheis J., Basoalto E., **Angeli S.**, Knight A. L. (2017) Survey of conspecific herbivore-induced volatiles from apple as possible attractants for *Pandemis pyrusana* (Lepidoptera: Tortricidae). **Pest Management Science**, 73: 1837–1845. DOI: 10.1002/ps.4548.
- P31) Pattamayutanon P., **Angeli S.**, Thakeow P., Abraham J., Disayathanoowat T., Chantawannakul P., (2017) Volatile organic compounds in Thai honeys produced from several floral sources by different bee species. **PLOS ONE**, 12(2): e0172099. DOI:10.1371/journal.pone.0172099.
- P30) Boevé J.-L., Trenczek T.E., **Angeli S.** (2017) Searching for particular traits of sawfly (Hymenoptera: Tenthredinidae) larvae that emit hemolymph as a defence against predators. **Journal of Insect Physiology**, 96: 93–97. DOI: 10.1016/j.jinsphys.2016.10.012.
- P29) Giacomuzzi V., Cappellin L., Khomenko I., Biasioli F., Schuetz S., Tasin M., Knight A.L., **Angeli S.** (2016) Emission of volatile compounds from apple plants infested with *Pandemis heparana* larvae, antennal response of conspecific adults, and preliminary field trial. **Journal of Chemical Ecology**, 42 (12): 1265–1280. DOI: 10.1007/s10886-016-0794-8.
- P28) Salvagnin U., Carlin S., **Angeli S.**, Vrhovsek U., Anfora G., Malnoy M., Martens S. (2016) Homologous and heterologous expression of grapevine E-beta-caryophyllene synthase (VvGwECar2). **Phytochemistry**, 131: 76–83. DOI: 10.1016/j.phytochem.2016.08.002.
- P27) Pattamayutanon P., **Angeli S.**, Thakeow P., Abraham J., Disayathanoowat T., Chantawannakul P. (2015) Biomedical activity and related volatile compounds of Thai honeys from three different honeybee species. **Journal of Food Science**, 80 (19): M2228-M2240. DOI: 10.1111/1750-3841.12993.

- P26) Abraham J., Giacomuzzi V. and **Angeli S. (2015)** Root damage of apple plants by cockchafer larvae induces a change in volatile signals below- and above-ground. **Entomologia Experimentalis et Applicata**, 156: 279-289. DOI: 10.1111/eea5.12330.
- P25) Castrillo L.A., Hajek A. E., Kepler R. M., Pajares J. A., Thomsen I. M., Csóka G., Zamora P., **Angeli S. (2015)** Multilocus genotyping of *Amylostereum* spp. associated with *Sirex noctilio* and other woodwasps from Europe reveal clonal lineage introduced to the US. **Fungal Biology**, 119: 595-604. DOI:10.1016/j.funbio.2015.03.004.
- P24) Sriwattana S., Phimolsiripol Y., Pongsirikul I., Utama-ang N., Surawang S., Decharatanangkoon S., Chindaluang Y., Senapa J., Wattanatchariya W., **Angeli S.**, Thakeow P. (2015) "Development of concentrated strawberry beverage fortified with longan seed extract" **Chiang Mai University Journal of Natural Sciences**, 14(2): 175-188.
- P23) Abraham J., Zhang A., **Angeli S.**, Abubeker S., Michel C., Feng Y., Rodriguez-Saona C. (2015) Behavioral and antennal responses of Spotted Wing Drosophila, *Drosophila suzukii*, to volatiles from fruit extracts. **Environmental Entomology**, 44(2): 356-367. DOI: 10.1093/ee/nvv013.
- P22) Dekker T., Revadi S., Mansourian S., Ramasamy S., Lebreton S., Becher P.G., **Angeli S.**, Rota-Stabelli O. and Anfora G. (2015) Loss of Drosophila pheromone reverses its role in sexual communication in *Drosophila suzukii*. **Proceedings of the Royal Society B-Biological Sciences**, 282: 20143018, DOI: 10.1098/rspb.2014.3018.
- P21) Revadi S., Vitagliano S., Rossi Stacconi M.V., Ramasamy S., Mansurian S., Carlin S., Vrhovsek U., Becher P.G., Mazzoni V., Rota-Stabelli O., **Angeli S.**, Dekker T., Anfora G. (2015) Olfactory responses of *Drosophila suzukii* females to host plant volatiles. **Physiological Entomology**, 40(1): 54-64. DOI: 10.1111/phen.12088.
- P20) Dippel S., Oberhofer G., Kahnt J., Gerischer L., Opitz L., Schachtner J., Stanke M., Schütz S., Wimmer E. A., **Angeli S. (2014)** Tissue-specific transcriptomics, chromosomal localization, and phylogeny of chemosensory and odorant binding proteins from the red flour beetle *Tribolium castaneum* reveal subgroup specificities for olfaction or more general functions. **BMC Genomics**, 15(1): 1141. DOI:10.1186/1471-2164-15-1141.
- P19) Abraham J., Opuni-Frimpong E., Weissbecker B., Schuetz S., **Angeli S. (2014)** Olfactory cues of mahogany trees to female *Hypsipyla robusta*. **Bulletin of Insectology**, 67(1): 21-30.
- P18) Surin S., Thakeow P., Seesuriyachan P., **Angeli S.** and Phimolsiripol, Y. (2014) Effect of extraction and concentration processes on properties of longan syrup. **Journal of Food Science and Technology**, 51(9):2062-2069. DOI: 10.1007/s13197-013-1249-7.
- P17) Vitagliano S., Grassi A., Anfora G. and **Angeli S. (2013)** L'insetto esotico *Drosophila suzukii*: ecologia e linee di difesa. **Italus Hortus**, 20 (3): 3-17, review paper.
- P16) Sriwattana S., Utama-ang N., Thakeow P., Senapa J., Phimolsiripol Y., Surawang S., Pongsirikul I. and **Angeli S. (2012)** "Physical, chemical and sensory characterization of the Thai-crispy pork rind 'KaeB Moo'". **Chiang Mai University Journal of Natural Sciences** 11(1): 181-191.
- P15) Boevé J.-L. and **Angeli S. (2010)** "Eco-physiology of dorsal versus ventral cuticle in flattened sawfly larvae", **Naturwissenschaften**, 97(6): 595-599. DOI: 10.1007/s00114-010-0668-9.
- P14) Hu J., **Angeli S.**, Schuetz S., Luo Y. and Hajek A.E. (2009) "Ecology and management of exotic and endemic *Anoplophora glabripennis* (Coleoptera: Cerambycidae)", **Agricultural and Forest Entomology**, 11(4): 359–375, review paper. DOI: 10.1111/j.1461-9563.2009.00443.x.
- P13) Richards S., ..., Robertson H.M., **Angeli S.**, Forêt S., et al. (2008) The genome of the developmental model beetle and pest *Tribolium castaneum*", **Nature**, 452(7190): 949-955. DOI: 10.1038/nature06784.
- P12) Thakeow P., **Angeli S.**, Weißbecker B, Schütz S. (2008) "Antennal and behavioural responses of *Cis boleti* to fungal odour of *Trametes gibbosa*", **Chemical Senses**, 33(4): 379-387. DOI: 10.1093/chemse/bjn005.
- P11) Shonouda M., **Angeli S.**, Schutz S., Vidal S. (2008) "Use of CLSA and SPME-Headspace techniques followed by GC-MS analysis to extract and identify the floral odorants", **Pakistan Journal of Biological Sciences**, 11 (9): 1246-1251. DOI: 10.3923/pjbs.2008.1246.1251.

- P10) Tomaselli S., Crescenzi O., Sanfelice D., Ab E., Wechselberger R., **Angeli S.**, Scaloni A., Boelens R., Tancredi T., Pelosi P., Picone D. (2006) Solution structure of a chemosensory protein from the desert locust *Schistocerca gregaria*. **Biochemistry**, 45(35):10606-13. DOI: 10.1021/bi060998w.
- P9) Boevé J.-L., Ducarme V., Mertens T., Bouillard P., **Angeli S.** (2004) "Surface structure, model and mechanism of an insect integument adapted to be damaged easily" **Journal of Nanobiotechnology**, 2:10. DOI:10.1186/1477-3155-2-10.
- P8) Brandazza A., **Angeli S.**, Tegoni M., Cambillau C. and Pelosi P. (2004) "Plant stress proteins of the thaumatin-like family discovered in animals" **FEBS Letters** 13; DOI: 572(1-3):3-7. 10.1016/j.febslet.2004.07.003.
- P7) Ban L., Scaloni A., Brandazza A., **Angeli S.**, Zhang L., Yan Y. and Pelosi P. (2003) "Chemosensory proteins of *Locusta migratoria*" **Insect Molecular Biology** 12(2): 125-134. DOI: 10.1046/j.1365-2583.2003.00394.x.
- P6) Monteforti G., **Angeli S.**, Petacchi R. and Minnocci A. (2002) "Ultrastructural characterization of antennal sensilla and immunocytochemical localization of a chemosensory protein in *Carausius morosus* Brünner (Phasmida: Phasmatidae)" **Arthropod Structure and Development** 30(3): 195-205. DOI: 10.1016/S1467-8039(01)00036-6.
- P5) Picone D., Crescenzi O., **Angeli S.**, Marchese S., Brandazza A., Ferrara L., Pelosi P. and Scaloni A. (2001) "Bacterial expression and conformational analysis of a chemosensory protein from *Schistocerca gregaria*" **European Journal of Biochemistry** 268 (17): 4794-4801. DOI: 10.1046/j.1432-1327.2001.02408.x.
- P4) Picimbon J.-F., Dietrich K., **Angeli S.**, Scaloni A., Kriger J., Breer H. and Pelosi P. (2000) "Purification and molecular cloning of chemosensory proteins from *Bombyx mori*" **Archives of Insect Biochemistry and Physiology** 44: 120-120. DOI: 10.1002/1520-6327(200007)44:3<120::AID-ARCH3>3.0.CO;2-H
- P3) Marchese S., **Angeli S.**, Andolfo A., Scaloni A., Brandazza A., Mazza M., Picimbon J.-F., Leal W. S. and Pelosi P. (2000) "Soluble proteins from chemosensory organs of *Eurycantha calcarata* (Insects, Phasmododea)" **Insect Biochemistry and Molecular Biology** 30 (11): 1091-1098. DOI: 10.1016/S0965-1748(00)00084-9.
- P2) Scaloni A., Monti M., **Angeli S.** and Pelosi P. (1999) "Structural analysis and disulfide-bridge pairing of two odorant-binding proteins from *Bombyx mori*" **Biochemical and Biophysical Research Communications** 266: DOI: 386-391. 10.1006/bbrc.1999.1791.
- P1) **Angeli S.**, Ceron F., Scaloni A., Monti M., Monteforti G., Minnocci A., Petacchi R. and Pelosi P. (1999) "Purification, structural characterisation, cloning and immunocytochemical localisation of chemoreception proteins from *Schistocerca gregaria*" **European Journal of Biochemistry** 262: 745-754. DOI: 10.1046/j.1432-1327.1999.00438.x.

Book chapters

- O1) Yarmand H., Sadeghi S.E., Mohammadi M., Mehrabi A., Zamani M., Ajamhasani M. and **Angeli S.** (2009) The fall webworm, *Hyphantria cunea* (Lepidoptera: Arctiidae): a new emerging pest insect for forests and agricultural crops of Iran. p. 120-134. In: "Review of Forests, Wood Products and Wood Biotechnology of Iran and Germany" (A.R. Kharazipour, C. Schöpfer, C. Müller, M. Euring, eds.). Part III, **Universitätsverlag Göttingen**, Germany, 318 pp., ISBN: 978-3-940344-72-4.

Conference proceedings, oral communications and posters (since 2010)

- A70) Castellan I., Angeli S. (2017) An innovative approach for the management of spotted wing drosophila (*Drosophila suzukii*): improve crop protection using an environmentally friendly formulation. VIII Annual Meeting - European PhD Network "Insect Science", Napoli, 15-18 November 2017.
- A69) Preti M., Angeli S. (2017) New strategies in organic pest insect control by the characterization of bioactive plant volatile organic compounds of agricultural crops. VIII Annual Meeting - European PhD Network "Insect Science", Napoli, 15-18 November 2017.
- A68) Giacomuzzi V., Nones S., Mazzoni V., Cappellin L., Angeli S. (2017) First characterization of herbivore-induced volatiles released by grapevine (cv. Pinot noir) under attack of *Empoasca vitis* (Hemiptera:

- Cicadellidae). Meeting of the IOBC-WPRS Working Group 'Future-IPM - Novel tools and new challenges for IPM in viticulture', Riva del Garda (Italy), 15-20 October 2017.
- A67) Salvagnin U., Malnoy M., Thöming G., Tasin M., Carlin S., Martens S., Vrhovsek U., Angeli S., G. Anfora (2017) Exploitation of genetically modified *Vitis vinifera* plants with altered kairomone emission ratio for the control of the European Grapevine Moth *Lobesia botrana*. Meeting of the IOBC-WPRS Working Group 'Future-IPM - Novel tools and new challenges for IPM in viticulture', Riva del Garda (Italy), 15-20 October 2017.
- A66) Cappellin L., Giacomuzzi V., Angeli S., Biasioli F., McKinney K. (2017) Modern ultra-high sensitive SCIMS allows unprecedented studies in atmosphere-biosphere interactions. First International Conference on Soft Chemical Ionisation Mass Spectrometry and Applications to Trace Gas Analysis, Dornbirn (Austria), 18-20 September 2017.
- A65) Kitpot T., Thakeow P., Asaduzzaman M., Angeli S., Scampicchio M.M. (2017) A simple and rapid method based on proton transfer reaction mass spectrometry to determine rancidity of crispy pork rinds. Pure and Applied Chemistry International Conference 2017 - PACCON 2017, Bangkok (Thailand), 2-3 February 2017 (spoken presentation).
- A64) Giacomuzzi V., Angeli S. (2016) Potential of herbivore-induced volatiles as attractants for leaf-feeding tortricids. 25th International Congress of Entomology, Orlando, Florida (USA), 25-30 September 2016 (spoken presentation).
- A63) Spinelli F., Cellini A., Buriani G., Donati I., Giacomuzzi V., Rodriguez-Estrada M.T., Savioli S., Costa G., Angeli S. (2016) Volatile organic compounds produced by fire blight infected apple flowers reduce honeybees visits. XI Giornate Scientifiche SOI, Bolzano (Italy), 14-16 September 2016.
- A62) Angeli S., Giacomuzzi V., Abraham J. (2016) Plant volatiles as powerful tools against above- and below-ground insect attack. XI Giornate Scientifiche SOI, Bolzano (Italy), 14-16 September 2016.
- A61) Angeli S. (2016) L'olfatto degli insetti: dalla trasduzione degli stimoli chimici agli effetti comportamentali. XXV Italian National Congress of Entomology, Padova (Italy), 20-24 June 2016 (spoken presentation).
- A60) Pattamayutanon P., Thakeow P., Abraham J., Disayathanoowat T., Chantawannakula P., Angeli S. (2016) Influence of Honeybees Species, Floral Origin and Post-Collection Processing on Final Honey Quality. XXV Italian National Congress of Entomology, Padova (Italy), 20-24 June 2016.
- A59) Giacomuzzi V., Weissbecker B., Schuetz S. Angeli S. (2016) Caratterizzazione dei composti volatili indotti nel melo in seguito al danno di *Pandemis heparana* e risposta olfattiva da parte di adulti conspecifici. XXV Italian National Congress of Entomology, Padova (Italy), 20-24 June 2016.
- A58) Cocetta G., Trivellini A., Franzoni G., Angeli S., Ferrante A. (2016) Abscisic acid and carotenoids metabolism in tomato during postharvest. VIII International Postharvest Symposium: Enhancing Supply Chain and Consumer Benefits - Ethical and Technological Issues. Murcia Cartagena (Spain), 21-24 June 2016.
- A57) Cappellin L., Algarra Alarcon A., Lazazzara V., Bianchedi P.L., Perazzolli M., Giacomuzzi V., Angeli S., McKinney K., Biasioli F. (2016) Monitoring food crop stress via VOC analysis. 7th International PTR-MS Conference, Obergurgl (Austria), 14-19 February 2016.
- A56) Angeli S. (2016) Edible insects: potential contribution as food and feed from an European perspective. 3rd International Conference on Food and Applied Bioscience, Chiang Mai (Thailand), 4-5 February 2016 (invited speaker).
- A55) Malagnini V., Zanotelli L., Fontana P., Nazzi F., Annoscia D., Di Prisco G., Larcher R., Tonidandel L., Serra G., Colombo R., Angeli S., Angeli G. (2015) Imidacloprid treatments of apple orchards lead to residues and chronic toxicity in bee colonies. 11th COLOSS Conference, Lukovica (Slovenia), 21-23 October 2015.
- A54) Holighaus G., Schreiber J., von Fragstein M., Thakeow P., Angeli S., Nones S., Rohlf M., Stötefeld L., Granzow S., Schütz S. (2015) Eight-carbon volatiles as infochemicals for fungivores. International Conference of Chemical Ecology 2015, Stockholm (Sweden), 29 June – 3 July 2015.

- A53) Holighaus H., Angeli S., von Fragstein M., Schütz S. (2015) Pheromonal function of defensive secretions in *Bolitophagus reticulatus*. Entomologentagung DGaaE (=German Society for General and Applied Entomology), Frankfurt (Germany), 02-05 March 2015.
- A52) Holighaus H., Schreiber J., von Fragstein M., Thakeow P., Angeli S., Weißbecker B., Schütz S. (2015) Eight-carbon volatiles as infochemicals for fungivorous beetles. Entomologentagung DGaaE (=German Society for General and Applied Entomology), Frankfurt (Germany), 2-5 March 2015 (spoken presentation).
- A51) Kitpot T., Thakeow P., Sriwattana S., Angeli S. (2014) Changes of physical, chemical, and sensory properties of crispy pork rind 'Kaeb Moo' during storage and its shelf life. International Graduate Research Conference (iGRC 2014), Chiang Mai (Thailand), 12 December 2014.
- A50) Panzacchi P., Ventura M., Wellstein C., Angeli S., Brusetti L., Burruso L., Casagrande S., Scandellari F., Zerbe S., Tonon G. (2014) Effect of nitrogen deposition on structural and functional characteristics of a forest ecosystem in Trentino - Alto Adige: a multidisciplinary approach. 2. International Congress of Silviculture "Designing the Future of the Forestry Sector", Florence (Italy), 26-29 November 2014.
- A49) Spinelli F., Cellini A., Buriani G., Donati I., Giacomuzzi V., Rodriguez-Estrada M.T., Fernandez Ferrari M.C., Savioli S., Costa G., Vanneste J., Angeli S. (2014) Volatile organic compounds produced by fire blight infected apple flowers discourage honeybees visits. International workshop on Molecular Basis of Fire Blight, Bolzano (Italy), 15 October 2014.
- A48) Anfora G., Dekker T., Mansourian S., Revadi S., Ramasamy S., Lebreton S., Becher P., Rota-Stabelli O. and Angeli S. (2014) *Drosophila suzukii* non utilizza il cis-vaccenil acetato come feromone di aggregazione, diversamente da altre specie del genere *Drosophila*. XXIV Italian National Congress of Entomology, Orosei (Italy), 9-13 June 2014 (spoken presentation).
- A47) Salvagnin U., Anfora G., Malnoy M., Martens S. and Angeli S. (2014) Control of *Lobesia botrana* through the manipulation of the host plant's volatiles. 5th Annual Meeting of the European PhD Network in Insect Science, Orosei (Italy), 8-9 June 2014.
- A46) Mair S., Fernandez Ferrari C., Malagnini V., Fontana P. and Angeli S. (2014) Evaluation of a fungal application to increase varroa controlling by *Metarhizium anisopliae*. API ORGANICA 2014, Bologna (Italy), 3-7 March 2014.
- A45) Fernandez Ferrari C.M., Pattamayutanon P., Schuler H., Fontana P., Malagnini V., Chantawannakul P. and Angeli S. (2014) Honey bees as sentinels of the environment: bee health, pesticides, environmental pollution and parasites. Thai-Italian Conference on Food and Agriculture for Sustainable Upland Development, Chiang Mai University, Chiang Mai (Thailand), 2-6 December 2013 (spoken presentation).
- A44) Angeli S. (2013) Unravelling a new language of nature: insect-plant communication through volatile compounds. 4th Annual Meeting of the European PhD Network in Insect Science, Paluzza (Udine), 19-22 September 2013 (spoken presentation).
- A43) Malagnini V., Fontana P., Nazzi F., Di Prisco G., Caprio E., Pennacchio F., Angeli S. (2013) Imidacloprid treatments of apple orchards lead to residues and chronic toxicity in bee colonies. 9th COLOSS Conference, Kiev (Ukraine), 27-28 September 2013.
- A42) Fernandez Ferrari C., Nazzi F., Angeli S. (2013) Parasite-host interaction between *Varroa destructor* and *Apis* sp. Symposium Internationale Entomofaunisticum Europa Centralis XXIII, Bolzano (Italy), 9-13 September 2013.
- A41) Fernandez Ferrari C., Nazzi F., Angeli S. (2013) Characterization of *Apis cerana* and *Apis mellifera* epicuticular hydrocarbons and their role in *Varroa destructor* orientation behavior. International Conference of Chemical Ecology 2013, Melbourne (Australia), 19-23 August 2013.
- A40) Abraham J., Rodriguez-Saona C., Zhang A., Angeli S. (2013) Exploiting the scent of fruits to protect crops against *Drosophila suzukii*. International Chemical Ecology Conference, Melbourne (Australia), 19-23 August 2013.
- A39) Abraham J., Angeli S. (2013) *Melolontha melolontha*: a root feeding pest in apple orchards. International Chemical Ecology Conference, Melbourne (Australia), 19-23 August 2013.
- A38) Spinelli F., Cellini A., Buriani G., Donati I., Giacomuzzi V., Rodriguez-Estrada M.T., Savioli S., Costa G., Vanneste J., Angeli S. (2013) Volatile organic compounds produced by fire blight infected apple

- flowers reduce honeybees visits. Conference paper. 19th Australasian Plant Pathology Conference (APPS), Auckland, New Zealand, 25-28 November, 2013.
- A37) Giacomuzzi V., Abraham J., Angeli S. (2013) Feeding damage of *Pandemis heparana* induces the release of specific volatile compounds from apple plants. Conference paper. Tropentag: Agricultural development within the rural-urban continuum. Stuttgart-Hohenheim, Germany, 17-19 September 2013.
- A36) Vitagliano S., Rossi Stacconi M.V., Revadi S., Angeli S., Mazzoni V., Carlin S., Vrhovsek U., Anfora G. (2013) Electrophysiological and behavioural responses of *Drosophila suzukii* to host plant volatiles. Conference "Future IPM in Europe", Riva del Garda (Italy), 19-21 March 2013.
- A35) Giacomuzzi V., Angeli S. (2012) Changes in apple plant volatiles in response to feeding damage of *Pandemis heparana*. Conference paper. 24th International Congress of Entomology, Daegu (South Korea), 19-25 August 2012.
- A34) Thakeow P., Angeli S. (2012) Volatile organic compounds of teak and behavioral responses of termites to teak volatiles. 24th International Congress of Entomology, Daegu (South Korea), 19-25 August 2012.
- A33) Murugan K., Dippel S., Angeli S., Pelosi P., Schachtner J., Wimmer E. and Schutz S. (2012) How are odorant binding proteins involved in olfaction of *Tribolium castaneum*? 24th International Congress of Entomology, Daegu (South Korea), 19 – 25 August 2012.
- A32) Thakeow P., Sutthaphakti K., Sakdatorn V. and Angeli S. (2010) Analysis of volatile organic compounds released from teak sawdust. "Research Path: Innovation for Creative Economy and Sustainability" Symposium, Chiang Mai (Thailand) 25-26 November 2010.
- A31) Angeli S. (2010) Learning insect olfaction to build novel highly sensitive olfactory-based biosensors. VIII National Postharvest Technology Conference, Chiang Mai (Thailand), 1-3 September 2010, keynote speaker.
- A30) Thakeow P. and Angeli S. (2010) Antennal responses of rice weevils to volatile organic compounds released by jasmine paddy rice. VIII National Postharvest Technology Conference, Chiang Mai (Thailand), 1-3 September 2010.
- A29) Abraham J., Angeli S., Schütz S., Weissbecker B. and Opuni-Frimpong E. (2010) Olfactory cues of female *Hypsipyla robusta* (Moore) (Lepidoptera: Pyralidae) to mahoganies of the genera, *Entandrophragma* and *Khaya*. XXIII IUFRO World Congress, "Forests for the Future: Sustaining Society and the Environment, Seoul (Republic of Korea), 23-28 August 2010.