

## CV Andrea Pisent

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First name	<i>Andrea</i>
Surname	<i>Pisent</i>
Beneficiary	<i>INFN</i>
Current job title	<i>Dirigente Tecnologo</i>

### Highest education level (BSc, MSc, PhD):

Post doc at Karlsruhe University and at Los Alamos (University of California); CERN fellow.

University: Degree in Physics at Padova University in 1986 with thesis in theoretical Accelerator Physics (110/110 cum laude).

High school, Liceo classico 1981 (60/60)

### Relevant work experience in the related Work Package area:

Since 1990 at INFN Legnaro National Laboratory, since 2008 as Dirigente Tecnologo, leads the Beam Physics group.

Was responsible for:

- beam dynamics and commissioning of CERN Linac3 low energy part (built by INFN LNL).
- Beam dynamics and commissioning of PIAVE superconducting RFQ at LNL.
- Construction of TRASCO RFQ (high intensity proton) and MUNES neutron source study at INFN LNL.
- Construction ESS drift tube linac (Italian in kind contribution)
- Construction of IFMIF EVEDA RFQ (high intensity deuterons) as Italian in kind contribution.

Coordinates

the INFN participation in DONES project (technical coordinator)

the INFN participation to the ESS linac construction.

- Professor of Accelerator Physics as Professore a contratto) at Padova University (undergraduate and PHD) for many years.
- Member of the scientific board of the PHD in Accelerator Physics at the University La Sapienza in Rome, member of the CTS of RFX Consortium in Padova.

### Major relevant publications (last 5 years):

1. Knaster, Juan et al. " The accomplishment of the engineering design activities of IFMIF/EVEDA: the European–Japanese project towards a Li (d, xn) fusion relevant neutron source" Nuclear Fusion, (55.0) 8.0 p. 86003 (2015), IOP Publishing
2. Comunian, Michele et al. " RIB Transport and Selection for the SPES Project" 6th Int. Particle Accelerator Conf.(IPAC'15), Richmond, VA, USA, May 3-8, 2015, (nan) nan p. 3782-3784 (2015), JACOW, Geneva, Switzerland
3. Ferrari, Luigi et al. " Thermo-Mechanical Calculations for the SPES RFQ" 13th Heavy Ion Accelerator Technology Conference (HIAT2015), Yokohama, Japan, 7-11 September 2015, (nan) nan p. 219-221 (2016), JACOW, Geneva, Switzerland
4. Comunian, Michele et al. " The project SPES at Legnaro National laboratories" 13th Heavy Ion Accelerator Technology Conference (HIAT2015), Yokohama, Japan, 7-11 September 2015, (nan) nan p. 156-159 (2016), JACOW, Geneva, Switzerland
5. Mereu, Paolo et al. " ESS DTL Mechanical Design and Prototyping." Proc. IPAC'16, (nan) nan p. 2131-2133 (2016), nan
6. Mereu, Paolo et al. " Mechanical integration of the IFMIF-EVEDA radio frequency quadrupole" 7th Int. Particle Accelerator Conf.(IPAC'16), Busan, Korea, May 8-13, 2016, (nan) nan p. 3712-3714 (2016), JACOW, Geneva, Switzerland

## CV Andrea Pisent

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7. Comunian, Michele et al. " IFMIF-EVEDA RFQ, Measurement of Beam Input Conditions and Preparation to Beam Commissioning" Proc. HB, (nan) nan p. 338 (2016), nan
8. Fagotti, Enrico et al. " Status of IFMIF-EVEDA RFQ" Proc. RuPAC, (nan) nan p. 51 (2016), nan
9. Pisent, Andrea et al. " Towards commissioning of the IFMIF RFQ" LINAC 2016 (East Lansing, USA), (nan) nan p. nan (2016), nan
10. Fagotti, Enrico et al. " Preparation and installation of IFMIF-EVEDA RFQ at Rokkasho site" 28th Linear Accelerator Conf.(LINAC'16), East Lansing, MI, USA, 25-30 September 2016, (nan) nan p. 1005-1007 (2017), JACOW, Geneva, Switzerland
11. Palmieri, Antonio et al. " Tuning the IFMIF 5MeV RFQ accelerator" Proc. LINAC'16, (nan) nan p. 969 (2016), nan
12. Bellan, Luca et al. " Source and LEBT beam preparation for IFMIF-EVEDA RFQ" 28th Linear Accelerator Conf.(LINAC'16), East Lansing, MI, USA, 25-30 September 2016, (nan) nan p. 420-423 (2017), JACOW, Geneva, Switzerland
13. Comunian, Michele et al. " ESS DTL Beam Dynamics Comparison Between S-Code and T-Code" 28th Linear Accelerator Conf.(LINAC'16), East Lansing, MI, USA, 25-30 September 2016, (nan) nan p. 411-413 (2017), JACOW, Geneva, Switzerland
14. Comunian, Michele et al. " Commissioning Plans for the ESS DTL" 28th Linear Accelerator Conf.(LINAC'16), East Lansing, MI, USA, 25-30 September 2016, (nan) nan p. 264-266 (2017), JACOW, Geneva, Switzerland
15. Ferrari, Luigi et al. " RF-Mechanical Design and Prototyping of the SPES RFQ" 8th Int. Particle Accelerator Conf.(IPAC'17), Copenhagen, Denmark, 14-19 May, 2017, (nan) nan p. 4166-4168 (2017), JACOW, Geneva, Switzerland
16. Mauro, Giorgio et al. " Field uniformity preservation strategies for the ESS DTL: approach and simulations" 8th Int. Particle Accelerator Conf.(IPAC'17), Copenhagen, Denmark, 14-19 May, 2017, (nan) nan p. 4139-4141 (2017), JACOW, Geneva, Switzerland
17. Mereu, Paolo et al. " Thermo mechanical study of the ESS DTL" 8th Int. Particle Accelerator Conf.(IPAC'17), Copenhagen, Denmark, 14-19 May, 2017, (nan) nan p. 4537-4539 (2017), JACOW, Geneva, Switzerland
18. Fagotti, Enrico et al. " Installation and Low Power Test of IFMIF-EVEDA RFQ at Rokkasho Site" 8th Int. Particle Accelerator Conf.(IPAC'17), Copenhagen, Denmark, 14-19 May, 2017, (nan) nan p. 4162-4165 (2017), JACOW, Geneva, Switzerland
19. Bolzon, Benoit et al. " Intermediate Commissioning Results of the 70 mA/50 keV H<sup>+</sup> and 140 mA/100 keV D<sup>+</sup> ECR Injector of IFMIF/LIPAC" 7th Int. Particle Accelerator Conf.(IPAC'16), Busan, Korea, May 8-13, 2016, (nan) nan p. 2625-2627 (2016), JACOW, Geneva, Switzerland
20. Chel, S et al. " The linear IFMIF prototype accelerator (LIPAC) design development under the European-Japanese collaboration" nan, (nan) nan p. nan (2016), nan
21. Bolzon, Benoit et al. " Intermediate commissioning results of the required 140 mA/100 keV CW D<sup>+</sup> ECR injector of LIPAc, IFMIF's prototype" Proceedings of ECRIS2016 (WECO01), Busan, South Korea, (nan) nan p. nan (2016), nan
22. Shinya, Takahiro et al. " Status of the RFQ linac installation and conditioning of the Linear IFMIF Prototype Accelerator" Nuclear Materials and Energy, (15.0) nan p. 143-147 (2018), Elsevier
23. Comunian, Michele et al. " Beam dynamics simulation and measurements for the IFMIF/EVEDA project" 61<sup>st</sup> ICFA ABDW on High-Intensity and High-Brightness Hadron Beams (HB'18), Daejeon, Korea, 17-22 June 2018, (nan) nan p. 210-214 (2018), JACOW Publishing, Geneva, Switzerland
24. Fagotti, Enrico et al. " Beam commissioning of the IFMIF EVEDA very high power RFQ" 9th Int. Particle Accelerator Conf.(IPAC'18), Vancouver, BC, Canada, April 29-May 4, 2018, (nan) nan p. 2902-2907 (2018), JACOW Publishing, Geneva, Switzerland

## CV Andrea Pisent

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25. Bellan, Luca et al. " Beam Dynamics of the First Beams for IFMIF-EVEDA RFQ Commissioning" 9th Int. Particle Accelerator Conf.(IPAC'18), Vancouver, BC, Canada, April 29-May 4, 2018, (nan) nan p. 3246-3248 (2018), JACOW Publishing, Geneva, Switzerland
26. Comunian, Michele et al. " Beam Dynamic Simulation for the Beam Line from Charge Breeder to ALPI for SPES Project" 9th Int. Particle Accelerator Conf.(IPAC'18), Vancouver, BC, Canada, April 29-May 4, 2018, (nan) nan p. 3255-3257 (2018), JACOW Publishing, Geneva, Switzerland
27. Bellan, L et al. " Self-Consistent potential in high intensity deuteron beams simulations and measurements" AIP Conference Proceedings, (2011.0) 1.0 p. 80013 (2018), AIP Publishing LLC
28. Sugimoto, M et al. " Overview of the Validation Activities of IFMIF/EVEDA: LIPAc, the Linear IFMIF Prototype Accelerator and Lifus 6, the Lithium Corrosion Induced Facility" Preprint, (nan) nan p. 2020-03-03 00:00:00 (2018), nan
29. Chauvin, N et al. " Deuteron Beam Commissioning of the Linear IFMIF Prototype Accelerator Source and LEBT" Proc. 27th IAEA Fusion Energy Conf., Gandhinagar, India, (nan) nan p. nan (2018), nan
30. Sargsyan, Edgar et al. " ESS Normal Conducting Linac Status and Plans" 29th Linear Accelerator Conf.(LINAC2018), Beijing, China, (nan) nan p. nan (2018), nan
31. Mereu, Paolo et al. " Details of the Manufacturing Processes of the ESS-DTL Components" 29<sup>th</sup> Linear Accelerator Conf.(LINAC'18), Beijing, China, 16-21 September 2018, (nan) nan p. 260-263 (2019), JACOW Publishing, Geneva, Switzerland
32. Mereu, Paolo et al. " Design Details of the European Spallation Source Drift Tube LINAC" 29<sup>th</sup> Linear Accelerator Conf.(LINAC'18), Beijing, China, 16-21 September 2018, (nan) nan p. 190-192 (2019), JACOW Publishing, Geneva, Switzerland
33. Sugimoto, Masayoshi et al. " Progress report on LIPAc" presented from this work may be used under the terms, (nan) nan p. nan (2019), nan
34. Fagotti, Enrico et al. " IFMIF/EVEDA RFQ preliminary beam characterization" Proc. LINAC'18, (nan) nan p. 834-837 (2019), nan
35. Dima, Razvan et al. " IFMIF RFQ module characterization via mechanical and RF Measurements" nan, (nan) nan p. nan (2017), nan
36. Wittmer, Walter et al. " European Spallation Source (ESS) Normal Conducting Front End Status Report" 28th Linear Accelerator Conf.(LINAC'16), East Lansing, MI, USA, 25-30 September 2016, (nan) nan p. 274-276 (2017), JACOW, Geneva, Switzerland
37. Mauro, Giorgio S et al. " Analytical Method, based on Slater Perturbation Theorem, to Control Frequency Error when representing Cylindrical Structures in 3D Simulators" 2019 13th European Conference on Antennas and Propagation (EuCAP), (nan) nan p. 2020-04-01 00:00:00 (2019), IEEE
38. Shimosaki, Yoshito et al. " Lattice Design for 5MeV-125mA CW RFQ Operation in the LIPAc" nan, (nan) nan p. nan (2019), nan
39. Grespan, Francesco et al. " Tuning Experience on the ESS DTL Cold Model" 29<sup>th</sup> Linear Accelerator Conf.(LINAC'18), Beijing, China, 16-21 September 2018, (nan) nan p. 784-786 (2019), JACOW Publishing, Geneva, Switzerland
40. Baltador, Carlo et al. " High resolution mass separator dipole design studies for SPES project" Journal of Physics: Conference Series, (1401.0) 1.0 p. 12014 (2020), IOP Publishing
41. Comunian, Michele et al. " Status of the SPES Exotic Beam Facility" Journal of Physics: Conference Series, (1401.0) 1.0 p. 12002 (2020), IOP Publishing
42. Cavenago, M et al. " Development and installation of a radio frequency quadrupole cooler test" Review of Scientific Instruments, (90.0) 11.0 p. 113324 (2019), AIP Publishing LLC
43. Kondo, Keitaro et al. " Validation of the linear IFMIF prototype accelerator (LIPAc) in Rokkasho" Fusion Engineering and Design, (153.0) nan p. 111503 (2020), North-Holland
44. Shinya, Takahiro et al. " Integration of 175-MHz LIPAc RF System and RFQ Linac for Beam Commissioning" IEEE Transactions on Plasma Science, (nan) nan p. nan (2020), IEEE