

Personal data:

- Name: **David Zuliani**
- Address: 36/1 MONTELLO street, 33019 TRICESIMO (UD) ITALY
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- email: dzuliani@inogs.it
- Nationality: Italy
- Date of birth: 26 September 1971
- Place of birth: Udine, Italy
- Marital status: married
- Title: Graduate Electronic Engineer

Education:

- **June 2000:** qualification as a Professional Electronic Engineer at the University of Trieste (Italy)
Final mark: 112/120;
- **February 2000:** degree in Electronic Engineering at the University of Trieste (Italy),
Master Thesis title: "Eccitatore elettromeccanico alimentato con un generatore di impulsi gaussiani: studio teorico ed applicazione industriale",
Final mark: 109/110;
- **July 1990:** secondary-school diploma in electronics at the I.T.I. A. Malignani of Udine.

Professional positions:

- **August 2001 - present:** employed as a permanent staff position (electronic technician) at the department of "Centro di Ricerche Sismologiche (CRS)" of the "Istituto Nazionale di Oceanografia e di Geofisica Sperimentale - OGS", Trieste, Italy. Expert in seismometer calibrations, radio communication systems, seismological dataloggers, GPS instruments and GPS structure;
- **March 2000 - June 2001:** cooperation with the department of "Geofisica della Litosfera (GdL)" of the OGS as electronic assistant in a project concerning electronic tools (Down Hole Instrument) for geophysical while drilling monitoring.

Positions of responsibility:

- **May 2009 - present:** OGS Member Representation for the UNAVCO (University NAVSTAR Consortium);
- **February 2009 - present:** OGS Point of Reference in the agreement with IGM (Istituto Geografico Militare) about the italian GPS permanent networks integration;
- **July 2008 - present:** in charge for the INTA (Advanced Technological Systems / Infrastrutture tecnologiche avanzate) group of the "Centro di Ricerche Sismologiche (CRS)" of the "Istituto Nazionale di Oceanografia e di Geofisica Sperimentale - OGS", Trieste, Italy;
- **June 2006 – present:** technical manager for the GPS-RTK project of the OGS. The GPS-RTK project is funded by the Regione Autonoma Friuli Venezia Giulia (art. 11 L.R. 11/2003);
- **January 2006 - present:** assigned to the security administration of the "Centro di Ricerche Sismologiche (CRS)" of the "Istituto Nazionale di Oceanografia e di Geofisica Sperimentale - OGS", Trieste, Italy;
- **December 2005 - present:** OGS personnel representative within the scientific personnel staff of the CRS;
- **January 2004 - present:** GPS site manager of "ZOUF" site for the "EUREF Permanent Network", Central Bureau EUREF Permanent Network, Royal Observatory of Belgium;
- **June 2002 – present:** technical manager of the "Friuli Regional Deformation Network (FRdNet)", a GPS permanent network project for the CRS. FRdNet is part of the VALERIA project: "valutazione e prevenzione di rischi ambientali" (Decreto N. 784Ric funded by MIUR d.d. 24/07/2001).

Training periods:

- **April-May 2002:** GPS technical training at the Berkeley Seismological Laboratory (US);

- **March 1999 - February 2000:** "Danieli Automation Laboratories, Via B. Stringher 4 33042 Buttrio (Ud) Italy", training project concerning the electronic engineering thesis;
- **September 1990 - October 1990:** "Elektron, Buia (UD) Italy" technical service training.

Schools and/or Courses attended:

- Advanced GPS course "Geodetic analysis and data processing techniques for continuous geodetic reference stations", "The Ohio State University Geodesy and Geodynamics Group Division of Geodesy and Geospatial Science School of Earth Sciences Columbus, Ohio USA" 17 April, 2009;
- Advanced GPS course "Field engineering for continuous geodetic reference stations and for survey measurements", "The Ohio State University Geodesy and Geodynamics Group Division of Geodesy and Geospatial Science School of Earth Sciences Columbus, Ohio USA" 17 April, 2009;
- GPS course "Corso di Formazione sul GPS", "ITG Palladio Treviso", Treviso, Italy 12 November 2008;
- GPS course "GNSMART: installazione e configurazione di un software di Rete GNSS", "Centro Ricerche Sismologiche CRS" dell'"Istituto Nazionale di Oceanografia e di Geofisica Sperimentale – OGS di Trieste", Udine, Italy 10-11 Settembre 2008;
- English course, Council of Europe B2.1 level, The British School of Udine, Udine, Italy 08 June 2007;
- Advanced GPS course "GAMIT/GLOBK Advanced Workshop", "sede INGV di Grottaminarda" Italy, 21-22 november 2006;
- GPS course, Advanced-level, "GPS Analysis using GAMIT/GLOBK Software", GEORG-AUGUST-UNIVERSITÄT GÖTTINGEN, Germany 24 January 2006 - 4 February 2006;
- Course ICND: Interconnecting Cisco Network Devices, 40 hours, Teorema – Area Science Park (TS), Italy 12-16 september 2005;
- Course INTRO: Introduction to Cisco Networking Technologies, 40 hours, Teorema – Area Science Park (TS), Italy 11-15 July 2005;
- English course, Intermediate-level (Upper Waystage Three), Wall Street Institute, Udine, Italy 20th October 2003;
- GPS course, Intermediate-level, "Short course on GPS data processing using GAMIT/GLOBK ", Udine, Italy June, 2002;
- GPS course, Intermediate-level, "GPS Analysis using GAMIT/GLOBK Software", Toulouse, France 3-15 November, 2002.

Technical and scientific interest:

- GNSS permanent and semi-permanent site networks: full design, implementation and development;
- GNSS campaigns: full design, implementation and development;
- GNSS data processing: post processing and real-time techniques;
- Geodetic system conversions and mapping tools;
- Signal processing applied to seismology (seismic sensor calibration aims).

Computer languages and systems:

- Expert on GNSS processing software (GAMIT/GLOBK, TTOOLS, Pinnacle, Meridiana, Ashtech Solution Trimble Total Control);
- Expert on GNSS network software (GNSMART GEO++, GNSS Internet Radio, BNC, GNSS Surfer);
- Expert on Geodetic system conversion software (Verto, Cartlab, CoordTrans, WINDATUM);
- Expert on MatLab, Simulink and Linux shells;
- Good knowledge of MAC OS X, Linux; and most of the Microsoft Windows operating system versions;
- Worked extensively on Microsoft Office tool;
- Worked extensively on several graphics design tools (Corel Draw, Paint Shop Pro, Adobe Illustrator, Gimp).

Languages:

- Italian: mother tongue.
- English: good knowledge written and spoken.

Publications:

Journals & books:

- Zuliani D., Priolo E., Palmieri F., Fabris P. (2011), Sistemi di posizionamento globale, con ausilio di ricevitori satellitari, in ambito topografico e catastale, dimensione GEOMETRA 2011 7, 39-41pp
- Zuliani D., Priolo E., Palmieri F., Fabris P. (2009), Progetto GPS - RTK: una rete GPS per il posizionamento in tempo reale nel Friuli Venezia Giulia, dimensione GEOMETRA 2009 12, 30-36pp.
- Bechtold, M., M. Battaglia, D. C. Tanner, and D. Zuliani (2009), Constraints on the active tectonics of the Friuli/NW Slovenia area from CGPS measurements and three-dimensional kinematic modeling, *J. Geophys. Res.*, 114, B03408, doi:10.1029/2008JB005638.
- Bechtold, M., Zuliani, D. Fabris, P., Tanner, D. and M. Battaglia, Global Positioning System constraints on plate kinematics in the Southern Alps at the Nubia-Eurasia boundary, in Viggo Asphaug and Elias Sorensen (Eds.) GLOBAL POSITIONING SYSTEM, Nova Scienze Publishers, Inc. 2010.
- Zuliani D. (2007). Progetto GPS-RTK: una rete per il posizionamento in tempo reale, dimensione GEOMETRA 2007 11, 24-26pp.
- Zuliani D. (2007). Progetto GPS-RTK: una rete per il posizionamento in tempo reale, dimensione GEOMETRA 2007 12, 8-13pp.
- Pinato Gabrieli C., Braitenberg C., Zuliani D., Nagy I.(2006): TILTING AND HORIZONTAL MOVEMENT AT AND ACROSS THE NORTHERN BORDER OF THE ADRIA, in: F. Sansò A.J. Gil (Eds.), Geodetic Deformations Monitoring: from Geophysical to Engineering roles, IAG Symposium Jaèn, Spain, March 17-19, 2005, Springer Volume 131.
- D'Agostino N., Cheloni, Mantenuto, Selvaggi G., Michelini A., Zuliani D. (2005). Strain accumulation in the Southern Alps (NE Italy) and deformation at the north-eastern boundary of Adria observed by CGPS measurements. *Geophys. Res. Lett.*, 32.
- Priolo, E., Barnaba, C., Bernardi, P., Bernardis, G., Bragato, P.L., Bressan, G., Candido, M., Cazzador, E., Di Bartolomeo, P., Duri, G., Gentili, S., Govoni, A., Klinc, P., Kravanja, S., Laurenzano, G., Lovisa, L., Marotta, P., Michelini, A., Ponton, F., Restivo, A., Romanelli, M., Snidarcig, A., Urban, S., Vuan, A. and Zuliani D., Seismic monitoring in Northeastern Italy: a ten-year experience, *Seismological Research Letters*, Volume 76, Number 4, July/August 2005, 446-454.
- Battaglia, M., Zuliani, D., Pascutti, D., Michelini, A., Marson, I., Murray, M.H. and R. Burgmann. Network Assesses Earthquake Potential in Italy's Southern Alps. *EOS* 84 (28), 262-264, 15 July 2003.
- BERNARDIS G., BRAGATO P. L., DI BARTOLOMEO P., DURÌ G., GOVONI A., MICHELINI A., PONTON F., RESTIVO A., SNIDARCIG A., ZULIANI D., Risultati preliminari riguardanti lo studio degli effetti di sito a Claut utilizzando acquisizioni di dati simometrici., 2001, In: 20° Convegno GNGTS, Roma, Italy.

Selected abstracts:

- D. Zuliani, P. Fabris: La rete FredNet e il servizio RTK dell'OGS, convegno GPS-RTK: un servizio di posizionamento in tempo reale nel Friuli Venezia Giulia, (presentation) Palazzo del Municipio di Venzona, 18 ottobre 2011;
- B. Grillo, C. Braitenberg, R. Devoti, D. Zuliani, I. Nagy, P. Fabris (2010): THE STUDY OF KARSTIC AQUIFERS BY GEODETIC MEASUREMENTS IN CANSIGLIO PLATEAU (NORTH - EASTERN ITALY), (presentation) 29° Congresso Nazionale GNGTS – Prato, 26-28 ottobre 2010;
- Chiara Calligaris, Giulio Ceccone, Franco Liuzzi, Michela Dini, Giorgio Poretti, Luca Zini and David Zuliani: An active example of DGSD in the Carnic Alps (North Eastern part of Italy), (poster presentation) European Geosciences Union - General Assembly 2010 - Vienna, Austria, 3 - 5 May 2010;
- M. Coccia, E. Carminati, F. Rolandone, M. Battaglia, D. Zuliani and P. Fabris: Elastoplastic Models of the Interaction between Active Fronts of the Southern Alps and Dinarides (NE Italy and NW Slovenia), (presentation) COMSOL CONFERENCE, Leonardo da Vinci Hotel – Convention Center, Milan, Italy, 14-16 October 2009;
- D. Zuliani: Aspetti tecnici del servizio RTK dell'OGS, convegno GPS-RTK: un servizio di posizionamento in tempo reale nel Friuli-Venezia Giulia, (presentation) Salone del Parlamento del Castello di Udine, 7 ottobre 2009;

- D. Zuliani: GNSS Technology: activity and applications at the OGS, workshop “The Friuli Corner Problem”, sala atti di Ingegneria dell’Università degli Studi di Trieste, Italy, 15 luglio 2009;
- P.L. Bragato, P. Comelli, E. Del Negro, P. Di Bartolomeo, G. Duri, D. Pesaresi, E. Priolo, M. Romanelli, A. Saraò, M. Sugan and D. Zuliani: The North East Italy (NI) broadband network run by OGS: experience in improving the long period performances European Geosciences Union - General Assembly 2009 - Vienna, Austria, 19 - 24 April 2009;
- Zuliani D., Fabris P., Palmieri F. & Priolo E. - FReDNet: un sistema per il monitoraggio delle deformazioni crostali e per il posizionamento di precisione in tempo reale in Friuli-V. G., (poster presentation) Convegno annuale Gruppo Italiano di Geologia (Udine, 25-28 Febbraio 2009);
- Cassola, T.; Battaglia, M.; Doglioni, C.; Zuliani, D.: FEM modelling of stress accumulation in the Friuli Venezia Giulia area, (talk) Geophysical Research Abstracts, Vol. 10, EGU2008-A-00778, 2008 SRef-ID: 1607-7962/gra/EGU2008-A-00778, EGU European Geosciences Union, General Assembly 2008, Vienna, Austria, 13 – 18 April 2008;
- T. Cassola, M. Battaglia, C. Doglioni, D. Zuliani. A two dimensional elastic deformation model of the strain accumulation in Friuli - Venezia Giulia (Julian Alps, (presentation) 26° italian national meeting of the “Gruppo Nazionale di Geofisica della Terra Solida – GNGTS”, extensive summaries of the communications, Consiglio Nazionale delle Ricerche, Piazzale Aldo Moro 7 Roma, 13-15 november 2007;
- Teodoro Cassola, Maurizio Battaglia, Carlo Doglioni, David Zuliani: A two dimensional elastic deformation model of the strain accumulation in Friuli - Venezia Giulia (Julian Alps), (presentation) COMSOL CONFERENCE, World Trade Center, Grenoble, France, 23-24 October 2007;
- D. Zuliani: Il progetto GPS-RTK, convegno GPS-RTK: una rete GPS per il posizionamento in tempo reale nel Friuli-Venezia Giulia, (presentation) Salone del Parlamento del Castello di Udine, 3 ottobre 2007;
- Pesaresi D., Bragato P.L., Di Bartolomeo P., Duri G., Govoni A., Ponton F. and Zuliani D. (2006). Acquiring Seismic Data in the North-East of Italy: the OGS-CRS experience in using the Antelope software suite. Poster presented at 1st ECEES conference, Geneva (Switzerland), September 2006.
- Bechtold M., M. Battaglia, D. Tanner and D. Zuliani. Tectonics of the Friuli area (NE Italy): results from continuous GPS and kinematic modelling, (poster presentation) Geophys. Res. Abstracts, Vol. 9, 00279, 2007, European General Assembly, Vienna, Austria, 15-20 April 2007;
- Braitenberg C., Nagy I., Pinato Gabrieli C., Zuliani D.: RELIABILITY ENHANCEMENT OF CRUSTAL DEFORMATION RATES BY JOINT STUDY OF GEODETIC AND GEOLOGIC/GEOMORPHOLOGIC OBSERVATIONS, (presentation) 24° italian national meeting of the “Gruppo Nazionale di Geofisica della Terra Solida – GNGTS”, extensive summaries of the communications, Consiglio Nazionale delle Ricerche, Piazzale Aldo Moro 7 Roma, 15-17 november 2005;
- Braitenberg C., Pinato Gabrieli C., Nagy I., Zuliani D., Priolo E.: INTEGRATION OF SUBSURFACE AND GPS CRUSTAL DEFORMATION MONITORING, (presentation) Jaén meeting, Spain, 17-18 March 2005;
- M. Battaglia, D. Zuliani, M. H. Murray, R. Burgmann, E. Priolo. Using GPS to assess earthquake potential in Friuli (NE Italy), (poster presentation) UNAVCO Inc. Annual Meeting (February 27, 2004, Boulder CO);
- D. Zuliani, D. Pascutti, M. Battaglia, M.H. Murray, A. Michelini, R. Burgmann, I. Marson, FReDNet: Una rete di ricevitori GPS per la valutazione del potenziale sismico nelle Alpi sudorientali italiane, (talk, poster presentation) 22° Convegno Nazionale GNGTS Roma, 18-20 novembre 2003.
- D. Zuliani, M. Battaglia, D. Pascutti, A. Michelini, R. Burgmann, M. Murray, I. Marson, The Friuli Regional Deformation Network (FReDNet), (talk, poster presentation) Bilateral Geodetic Meeting Italy-Poland, University of Padova, poster presentation, 22-23 May 2003;
- D. Zuliani, M. Battaglia, D. Pascutti, M. Murray, A. Michelini, R. Burgmann, I. Marson, FReDNet: A CONTINUOUS GPS GEODETIC NETWORK MONITORING CRUSTAL DEFORMATION IN NE ITALY, (poster presentation) EGS-AGU-EUG Joint Assembly Nice, France, 06 - 11 April 2003;
- Zuliani D., Battaglia M. et al., FReDNet: A continuous GPS geodetic network monitoring crustal deformation in NE Italy, , (poster presentation) AGU Fall Meeting, 2002;

- M. Battaglia, D. Zuliani, et al., FReDNet: A continuous GPS geodetic network monitoring crustal deformation in NE Italy [Abs], (poster presentation) XXVIII General Assembly of the European Seismological Commission, University of Genova, September 2-8 2002.

Teaching:

- Teacher and promoter for the “*CORSO TEORICO-PRATICO SULL'USO DI SISTEMI DI POSIZIONAMENTO GLOBALE, CON AUSILIO DI RICEVITORI SATELLITARI, IN AMBITO TOPOGRAFICO E CATASTALE. Applicazioni delle tecniche GNSS per la topografia e il catasto*” presso l’I.S.I.S. "Arturo Malignani", Viale Leonardo Da Vinci, 10, UDINE, October 19, 20, 21 2011.
- Teacher and promoter for the “*CORSO TEORICO-PRATICO SULL'USO DI SISTEMI DI POSIZIONAMENTO GLOBALE, CON AUSILIO DI RICEVITORI SATELLITARI, IN AMBITO TOPOGRAFICO E CATASTALE. Applicazioni delle tecniche GNSS per la topografia e il catasto*” presso l’I.S.I.S. "Arturo Malignani", Viale Leonardo Da Vinci, 10, UDINE, May 24, 25, 26 2011.
- Co-examiner for the "*Applicazioni geodetiche allo studio dell'idrogeologia del Cansiglio*", Engineering Master Thesis by Dott. Barbara Grillo, University of Trieste (Polo universitario di Gorizia), thesis presentation April 2011.
- OGS Tutor for the 4 months stage “*Processamento dati con utilizzo di software GAMIT/GLOBK e MATLAB*” included within the “*Progetto Formativo e di Orientamento*” in agreement with the “Università degli Studi di Trieste”, Udine, November 2010.
- OGS Tutor for the 30 hours stage included within the “*Progetto Formativo e di Orientamento*” in agreement with the “Liceo Scientifico Statale Luigi Magrini, Udine, June 2010.
- Co-examiner for the "*MODELLAZIONE E CONTROLLO DI UN BANCO DI TARATURA PER SISMOMETRI*", Electronic Engineering Thesis by MARKOU WENDANA DJEWA, University of Trieste, thesis presentation April 2010.
- OGS Tutor for the 1 month stage “*Processamento dati GPS con utilizzo di software GAMIT/GLOBK*” in agreement with the Facoltà di Scienze Matematiche Fisiche e Naturali dell’Università degli Studi di Roma “La Sapienza”, Udine, March 2009.
- OGS Tutor for the 5 month stage “*Sviluppo e perfezionamento di un banco di taratura per sismometri*” in agreement with the Facoltà di Ingegneria dell’Università degli Studi di Trieste, Udine, October 2009.
- OGS Contributor for the Thesis “*Studio degli accumuli di stress nella crosta nel friuli venezia giulia attraverso modelli numerici elastici a 2 dimensioni*” (Specialistica in Geodinamica, Geofisica e Vulcanologia) in agreement with the Dipartimento di Scienze della Terra, Università di Roma “La Sapienza”, Udine, 2007.
- OGS Tutor for the 6 month stage “*Una rete GPS per il posizionamento in tempo reale nel FVG*” in agreement with the Facoltà d’Ingegneria dell’Università degli Studi di Udine, Udine, October 2006.
- OGS Contributor for the Diploma Thesis “*Earthquake Potential in the Southern Apls*” in agreement with the Department of Structural Geology and Geodynamics” of the “Geoscience Center” of the “Georg-August-University” of Gottinga (Germany), Udine, 2007.
- OGS Contributor for the Bachelor of Science “*Using GIS technology to study the active tectonics of Friuli-Venezia Giulia (NE-Italy) – A GIS database –*” in agreement with the Geosciences and Geography” of the ”Georg-August-University” of Gottinga (Germany), Udine, 2006.
- Co-examiner for the "*Movimenti crostali in Friuli Venezia Giulia da osservazioni geodetiche spaziali e clino-estensimetriche* ", Science of Geology Master Thesis by Chiara Pinato Gabrieli, University of Trieste, thesis presentation May 2005.
- Co-examiner for the "*FReDNet: una rete GPS per lo studio delle deformazioni crostali in Friuli-Venezia Giulia*", Engineering Master Thesis by Davide Pascutti, University of Trieste, thesis presentation April 2003.