

PhD Eng. Francesco Tinti

Curriculum Vitae

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Personal Information

Family name, First name: Tinti, Francesco

Researcher unique identifiers:

- ORCID: orcid.org/0000-0002-6750-9368
- ResearcherID: S-9591-2018
- Scopus Author ID: 7004019752

Place and Date of birth: Bologna, 28/02/1982

Nationality: Italian

URL for web site: <https://www.unibo.it/sitoweb/francesco.tinti/en>**Education**

2012	<p>PhD in Geoenvironmental, Georesources and Geotechnical Engineering. School of Engineering and Architecture, Department of Civil, Chemical, Environmental and Materials Engineering, University of Bologna, Italy. Supervisor: Prof. Roberto Bruno. Title of PhD Thesis: “The probabilistic characterization of underground as a tool for the optimization of integrated design of shallow geothermal systems”. PhD done in the framework of the Project of International Energy Agency (IEA) “Annex 21 – Thermal Response Test” and through collaboration of an Italian geology atelier.</p>
2007	<p>Master’s Degree in Environmental Engineering. Engineering Faculty, University of Bologna, Italy. Supervisor: Prof. Roberto Bruno. Title of Master Thesis: “Thermal exchange models in well based upon geothermal characterization of a low enthalpy reservoir – Sensitivity study on the efficiency of conditioning systems with heat pump”. Experimental thesis, done through collaboration of an Italian engineering atelier.</p>
2004	<p>Bachelor’s Degree in Environmental Engineering Engineering Faculty, University of Bologna, Italy. Supervisor: Prof. Paolo Macini. Title of the Bachelor Thesis: “Geothermal fluids and Italian geothermoelectric production: current stat and future perspectives”</p>

Current position

2021-2024	Senior Assistant Professor (Fixed-term – RTD-B) – University of Bologna
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Previous positions and fellowships

2020-2021	<p>Research Fellow – University of Bologna Position financed by Civil, Chemical, Environmental and Materials Research Funds. <u>Research activity</u> for the definition of efficiency of ground heat exchangers installed as a prototype in the lining of Brenner Basis Tunnel – BBT <u>Technical and management coordination</u> of EIT RawMaterials INCO-Piles 2020 Project (University of Bologna as Leader)</p>
2016-2019	<p>Junior Assistant Professor (Fixed-term – RTD-A) – University of Bologna Position financed in the framework of H2020 GEOTeCH Project. <u>Research activity</u> in the field of improving efficiency of ground heat exchangers and related drilling techniques for easy installation. <u>Technical and management coordination</u> of the UNIBO group within GEOTeCH Project (University of Bologna as Partner)</p>
2015-2016	<p>Research Fellow – University of Bologna Position financed in the framework of H2020 GEOTeCH Project. <u>Research activity</u> in the field of improving efficiency of ground heat exchangers and related drilling techniques for easy installation. <u>Technical and management coordination</u> of the UNIBO group within GEOTeCH Project (University of Bologna as Partner)</p>
2012-2015	<p>Research Collaborator. Position, external to University, financed in the framework of the following European Projects: - Interreg IVC Geo.Power – Emilia Romagna Region</p>

<ul style="list-style-type: none"> - IPA ADRIATIC LEGEND – Province of Ferrara - EUROPEAID E4EM – University of Bologna <p><u>Technical, management and scientific activity of support</u> in the field of raising awareness about the use of ground for heating and cooling purposes.</p>
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Language skills

Language	Level	Certificate	Issue date
Italian	Mother tongue		
English	C1	Cambridge	2019
French	B1	DELF	2007
Spanish	B2	DELE	2006
Russian	Knowledge of Cyrillic alphabet and technical terms related to energy sector. Skills mainly acquired in Belarus along E4EM Project (2012-2014)		

Experience abroad

Year(s)	Description	Type
2018	Lecturer of the Short Course “Geothermal Applications” at University of Brasilia, Responsible: Prof. J. Pimenta, 1 week	Didactics
2015	Tutor of the technical visit to Iranian Mines organized in 2015 for Master Students of Environmental Engineering, Responsible: Prof. R. Bruno, 2 weeks	Didactics
2013	Polytechnic University of Valencia, School of Industrial Engineering, as visiting Post-Doc Researcher. Responsible: Prof. J. Urchueguia, 3 weeks	Training
2012-2014	Long term stays in Ukraine, Belarus and Moldova, during E4EM Project, Prof. R. Bruno, max 1 month	Project
2012-2014	Medium term stays in Balkan Countries, mainly during LEGEND Project, max 2 weeks	Project
2009-2019	Short term stays in various Countries of European Union, for participating to meetings, congresses and fairs, max 4 days	Project
2005-2006	Polytechnic University of Valencia, School of Civil Engineering, 10 months	Erasmus

Participation to training courses

Year(s)	Description	Scientific Sector
2021	RawMatCop User Forum, EIT Raw Materials, Online, 2021	Remote Sensing
2019	RawMatCop Academy, Copernicus for Raw Materials, Discover the Potential, EIT Raw Materials, Bologna, 2019	Remote Sensing
2016	FEFLOW – Numerical Modeling for underground flow, DHI s.r.l., Torino, 2016	Groundwater modeling
2015	Workshop QGIS Base, meeting of Italian Users of GRASS GIS e GFOSS, University of Bologna, 2015	Spatial mapping
2014	Energy audit in SME, European Project ERASME, Bologna, 2014.	Energy audit
2014	Energy labelling of Building, Engineers Association of Bologna, 2014	Energy audit
2011	GEOTRAINET - Geo-education for a sustainable geothermal heating and cooling market – Training	Geothermal energy

	for Designers and Drillers, Brussels, Belgium, 2011	
2011	Energy Manager, AFOR S.a.S., Bologna, 2011	Energy audit

Professional activity

Year(s)	Description	Type
2020-2021	Collaboration with BBT - Brenner Basis Tunnel for the design, realisation and installation of the first prototype of energy lining at the Exploratory Tunnel of the Brenner Tunnel	Occasional performance
2020	Review and update of the second edition of the Book "Mirri, Parenti, Fisica Ambientale" (Environmental Physics) addressed to technical institutes, edited by Zanichelli (Bologna)	Copyright performance
2011-2015	Professional activity in the field of energy audit of commercial and industrial buildings	Freelance engineer
2009-2015	Professional activity in the field of teaching about geothermal systems for public and private bodies. Notable teaching are the professional courses held by Dario Flaccovio Editore	Freelance teacher on engineering topics
2009-2015	Professional activity in the field of designing geothermal systems. Notable projects are the geothermal heat pump systems designed in Province of Bologna and the thermal response tests performed in various Italian Regions (Emilia Romagna, Lombardia, Piemonte, Marche)	Freelance engineer
2008-2009	Realization, review and update of the first and second edition of the Book "Tinti, Geotermia per la Climatizzazione" (Geothermal for Air Conditioning), edited by Dario Flaccovio Editore (Palermo)	Copyright performance

Teaching and tutorship activities

Year	Title	Role
2021	Geostatistics and Environmental Modelling <u>Academic Course</u> , School of Engineering and Architecture, University of Bologna, Italy.	Lecturer
2021	Mines and Quarries (Miniere e Cave) <u>Academic Course</u> , School of Engineering and Architecture, University of Bologna, Italy	Tutor
2021	Laboratory on Data Analysis for Environmental Engineering (Laboratorio di Trattamento Dati per l'Ingegneria Ambientale) <u>Academic Course</u> , School of Engineering and Architecture, University of Bologna, Italy	Lecturer
2020	Geostatistics and Environmental Modelling <u>Academic Course</u> , School of Engineering and Architecture, University of Bologna, Italy.	Tutor
2020	Numerical Models for Geoenvironmental Engineering (Modelli Numerici per la Geoenvironmental Engineering) <u>Academic Course</u> , School of Engineering and Architecture, University of Bologna, Italy.	Tutor
2018	Geothermal Research at University of Bologna <u>Seminar</u> , Faculty of Mining, Geology and Petroleum Engineering, University of Zagreb, Croatia	Lecturer
2018	Geothermal Applications	Lecturer

	<u>Short Course (10 hours)</u> , Departamento de Engenharia Mecânica, University of Brasilia, Brasil	
2017-2019	Aquifer Engineering (Ingegneria degli Acquiferi) <u>Academic Course</u> , School of Engineering and Architecture, University of Bologna, Italy.	Lecturer
2016-2019	Numerical models for geoenengineering (Modelli Numerici per la Geotermia) <u>Academic Course</u> , School of Engineering and Architecture, University of Bologna, Italy.	Lecturer
2016	Low enthalpy geothermal energy (Geotermia a bassa entalpia) <u>Short Course (16 hours)</u> , within the Professional Master “Green-Tech”, Centre for Geotechnologies, University of Siena, Italy	Lecturer
2010	Design and installation of geoxchangers coupled to heat pump (Progettazione e installazione di geoscambiatori accoppiati a pompa di calore) <u>Short Course (8 hours)</u> , Centre for Geotechnologies, University of Siena, Italy	Lecturer

Supervision of Final Dissertations of Bachelor and Master Theses

Year	Title	Type
2021	Spaggiari C. (2021) Concept, design and testing of an innovative geothermal heat exchanger installed at the Brenner Base Tunnel. Master Degree in Civil Engineering. Tutor: Prof. D. Boldini	Co-Supervisor Master Thesis
2019	Galantini C. (2019) Analisi critica delle tecniche di perforazione e loro applicabilità nell’ambito della geotermia a bassa entalpia. Laurea Triennale in Ingegneria per l’Ambiente e il Territorio. Tutor: Prof. V. Bortolotti.	Co-Supervisor Bachelor Thesis
2019	Donnini L. (2018) Simulazione del flusso di massa e calore, trasporto di soluto e analisi di sensitività. Laurea Triennale in Ingegneria per l’Ambiente e il Territorio. Tutor: Prof. V. Bortolotti.	Co-Supervisor Bachelor Thesis
2018	Bergonzoni A. (2018) Valutazione delle potenzialità degli impianti open loop con scarico in corpo idrico superficiale nella città di Milano. Laurea Triennale in Ingegneria per l’Ambiente e il Territorio. Tutor: Prof. F. Tinti .	Supervisor Bachelor Thesis
2018	Foderà M. (2018) Studio dei fattori di maggiore influenza sul fenomeno del sovrascavo in gallerie scavate con metodo tradizionale. Laurea Magistrale in Ingegneria Civile. Tutor: Prof.sa D. Boldini.	Co-Supervisor Master Thesis
2017	Di Fluri P. (2017) Analisi e prospettive degli impianti di geoscambio in Provincia di Milano. Laurea Triennale in Ingegneria per l’Ambiente e il Territorio. Tutor: Prof. P. Macini.	Co-Supervisor Bachelor Thesis
2016	Lanconelli M. (2016) Studio di fattibilità per lo sfruttamento geotermico delle gallerie del Brennero. Laurea Magistrale in Ingegneria Civile. Tutor: Prof.sa D. Boldini. <i>Tesi vincitrice del primo premio della Società Italiana Gallerie.</i>	Co-Supervisor Master Thesis
2015	Ferrari M. (2015) Ricostruzione tridimensionale dell’interazione termica tra un locale interrato e il sottosuolo. Laurea Magistrale in Ingegneria per l’Ambiente e il Territorio. Tutor: Prof. R. Bruno.	Co-Supervisor Master Thesis
2015	Robleda Ramos V. (2015) Instalación de climatización para un edificio de oficinas mediante energía geotérmica. Laurea Magistrale in Ingegneria Industriale. University of Leon (SP). Tutor: Prof. E. S. Llamas. <i>International Thesis developed at the University of Bologna – Departments DICAM and DIN, through the economic aid of Erasmus program.</i>	Co-Supervisor Master Thesis
2015	Starni M. (2015) Simulazione numerica di un sistema geotermico a bassa entalpia open-loop in presenza di un gradiente geotermico anomalo. Laurea Magistrale in Ingegneria per l’Ambiente e il Territorio. Tutor: Prof. V. Bortolotti.	Co-Supervisor Master Thesis
2014	Righi A. (2014) Numerical Models and simulations of geothermal heat exchangers. Laurea Magistrale in Ingegneria per l’Ambiente e il Territorio. Tutor: Prof. V. Bortolotti. <i>International Thesis done in collaboration with KTH University of Stockholm, thanks to University’s funding for international thesis.</i>	Co-Supervisor Master Thesis
2014	Maioli V. (2014) Sistemi di condizionamento di un edificio residenziale a	Co-Supervisor

	pompa di calore e reservoir geotermico. Laurea Magistrale in Ingegneria per l'Ambiente e il Territorio. Tutor: Prof. R. Bruno.	Master Thesis
2012	Mercuri S. (2012) Analisi della stabilità dei risultati dei test di risposta termica: prove in campo, confronto ed analisi critiche per diversi metodi di esecuzione e modellazione. Laurea Magistrale in Ingegneria per l'Ambiente e il Territorio. Tutor: Prof. R. Bruno. <i>Thesis done with the collaboration of a Netherlander leader geothermal company, Groenholland, and through the economic aid of Erasmus Placement program.</i>	Co-Supervisor Master Thesis
2012	Ferrari M. (2012) Sviluppo di un sistema di monitoraggio delle temperature nei primi 10 m di profondità dei terreni. Applicazione allo studio di caratterizzazione termica spazio-temporale del terreno circostante una cantina per l'invecchiamento dei vini. Laurea Triennale in Ingegneria per l'Ambiente e il Territorio. Tutor: Prof. R. Bruno.	Co-Supervisor Bachelor Thesis
2011	Mesiti F. (2011) Analisi di prove TRT (Thermal Response Test) in diversi contesti geologici. Laurea Triennale in Geologia. Tutor: Prof. A. Simoni.	Co-Supervisor Bachelor Thesis
2011	Quarantini M. (2011) Aspetti geologici ed idrogeologici in relazione alle sonde geotermiche verticali. Laurea Magistrale in Geologia. Tutor: Prof. A. Gargini.	Co-Supervisor Master Thesis
2010	Gianello A. (2010) Confronto di Life Cycle Assessment applicati a sistemi a energia rinnovabili: sonde geotermiche e pannelli solari termici. Laurea Magistrale in Ingegneria Gestionale. Tutor: Prof. A. Bonoli.	Co-Supervisor Master Thesis
2009	Verrone A. (2009) Sistemi per la climatizzazione mediante pompe di calore e pali energetici. Laurea Magistrale in Ingegneria per l'Ambiente e il Territorio. Tutor: Prof. R. Bruno.	Co-Supervisor Master Thesis
2009	Saluci E. (2009) Caratterizzazione della conduttività termica di una roccia a scala di laboratorio. Laurea Triennale in Ingegneria per l'Ambiente e il Territorio. Tutor: Prof. R. Bruno.	Co-Supervisor Bachelor Thesis
2009	Mantar S. (2009) Geothermal Energy. Laurea in Fisica. Çukurova University (TR). Tutor: Prof. H. Paksoy. <i>International Thesis developed at the University of Bologna – Department DICAM, through the economic aid of Erasmus program</i>	Co-Supervisor Master Thesis

Publications in Scientific Journals, Presentations to Conferences and Posters

Year	Product	Type
2021	Kasmaeeyazdi S., Braga R., Mandanici E., Tinti F. (2021) Mapping bauxite mining residues using remote sensing techniques, in: RawMat2021 Book of Abstracts, Atene, 2021, pp. 77 - 77 INTERNATIONAL CONFERENCE ON RAW MATERIALS AND CIRCULAR ECONOMY - RAWMAT2021, Athens, 05-09 September 2021	Presentation to International Conference
2021	Buxton M., Guatame-Garcia A., Tinti F. , Kasmae S. (2021) Best practices for characterising mine wastes towards a mineral recovery assessment: a concept. SUSTAINABLE MINERALS '21, 21-24 JUNE 2021 ONLINE	Presentation to International Conference
2021	Guatame-Garcia A., Buxton M., Kasmae S., Tinti F. , Horta Arduin R., Mas Fons A., Bodenán F., Schick J. (2021) Challenges in the sampling and characterisation of mining residues for CRMs recovery. VIRTUAL EUROPEAN GEOSCIENCES UNION (vEGU) CONFERENCE, April 2021	Presentation to International Conference
2021	Bruno, R., Kasmaeeyazdi, S., Tinti, F. , Mandanici, E., Balomenos, E. (2021) Spatial component analysis to improve mineral estimation using sentinel-2 band ratio: Application to a Greek bauxite residue MINERALS, 2021, 11(6), 549	Paper on International Scientific Journal
2021	Kasmaeeyazdi, S., Mandanici, E., Balomenos, E., Tinti F. , Bonduà, S., Bruno, R. (2021) Mapping of aluminum concentration in bauxite mining residues using sentinel-2 imagery REMOTE SENSING, 2021, 13(8), 1517	Paper on International Scientific Journal
2020	Gholamnejad J., Azimi A., Lotfian R., Kasmaeeyazdi S., Tinti F. (2020). The application of a stockpile stochastic model into long-term open pit mine production scheduling to improve the feed grade for the processing plant.	Paper on International Scientific

	RUDARSKO-GEOLOSKO-NAFTNI ZBORNIK (MINING-GEOLOGY-PETROLEUM-BULLETIN), vol. 35(4). doi:10.17794/rgn.2020.4.10	Journal
2020	Bruno R., Kasmaeeyazdi S., Tinti F. , Mandanici E. (2020). Evaluating the correlation between ground information and satellite spectral data by geostatistical tools, In: Proceedings. MINERAL EXPLORATION SYMPOSIUM 2020, EAGE, online, 17-18 September 2020	Presentation to International Conference
2020	Foderà G.M., Voza A., Barovero G., Tinti F. , Boldini D., Factors influencing overbreak volumes in drill-and-blast tunnel excavation. A statistical analysis applied to the case study of the Brenner Base Tunnel – BBT, TUNNELLING AND UNDERGROUND SPACE TECHNOLOGY, 2020, 105, 103475 doi: 10.1016/j.tust.2020.103475	Paper on International Scientific Journal
2020	Barbaresi A., Maioli V., Bovo M., Tinti F. , Torreggiani D., Tassinari P. Application of basket geothermal heat exchangers for sustainable greenhouse cultivation, RENEWABLE AND SUSTAINABLE ENERGY REVIEWS, 2020, 129, 109928 doi: 10.1016/j.rser.2020.109928	Paper on International Scientific Journal
2020	Strpić K., Barbaresi A., Tinti F. , ...Macini P., Tassinari P. Application of ground heat exchangers in cow barns to enhance milk cooling and water heating and storage, ENERGY AND BUILDINGS, 2020, 224, 110213 10.1016/j.enbuild.2020.110213	Paper on International Scientific Journal
2020	Cazorla-Marín A., Montagud C., Tinti F. , Corberán J.M. (2020) A novel TRNSYS type of a coaxial borehole heat exchanger for both short and mid term simulations: B2G model APPLIED THERMAL ENGINEERING, 164, 114500 doi:10.1016/j.applthermaleng.2019.114500	Paper on International Scientific Journal
2020	Kasmaeeyazdi S., Mandanici E., Tinti F. , Bonduà S., Bruno R. (2020) Application of geostatistical analysis interacting with the earth observation data for recovery of raw materials from mining residuals (stockpiles and tailings): research projects at University of Bologna. In: Book of Abstracts Poster session at CONFERENCE ON MINING THE EUROPEAN ANTHROPOSPHERE, MINEA, Bologna, 20-21 February 2020	Poster at International Conference
2020	Kasmaeeyazdi S., Raspa G., De Fouquet C., Tinti F. , Bonduà S., Bruno R. (2018). How different data supports affect geostatistical modelling: the new aggregation method and comparison with the classical regularisation and the theoretical punctual model. INTERNATIONAL JOURNAL OF MINING, RECLAMATION AND ENVIRONMENT, 34(1), p. 1-21, ISSN: 1748-0930, doi:10.1080/17480930.2018.1507609	Paper on International Scientific Journal
2020	Focaccia S., Barbaresi A., Tinti F. (2020) Simulation of observed temperature field below a building in Bologna, Italy. ENVIRONMENTAL GEOTECHNICS, vol.7(4), pp.295-305 - ISSN:2051-803X doi: 10.1680/jenge.17.00105	Paper on International Scientific Journal
2019	Kasmae S., Raspa G., de Fouquet C., Tinti F. , Bonduà S., Bruno R. (2019). Geostatistical Estimation of Multi-Domain Deposits with Transitional Boundaries: A Sensitivity Study for the Sechahun Iron Mine. MINERALS, vol. 9, p. 115-136, ISSN: 2075-163X, doi: 10.3390/min9020115	Paper on International Scientific Journal
2019	Tinti F. , Azzolin M., Bonduà S., Zanetti E., Bortolin S., Busato G., Focaccia S., Cazorla-Marín A., Bortolotti V. (2019) Sequential coupled simulation of a dual source heat pump and shallow geothermal reservoir. In: Proceedings. 2019 EUROPEAN GEOTHERMAL CONGRESS. Den Haag, The Netherlands, 11-14 June 2019	Presentation to International Conference
2019	Tinti F. , Strpic K., Kasmae S., Focaccia S., Bedeschi E., Verdecchia A., Barbaresi A., Macini P. (2019) Performance comparison between a typical very shallow and an innovative configuration of ground heat exchangers. In: Proceedings. 2019 EUROPEAN GEOTHERMAL CONGRESS. Den Haag, The Netherlands, 11-14 June 2019	Poster at International Conference
2018	Tinti F. , Kasmae S., Elkarmoty M., Bonduà S., Bortolotti V. (2018) Suitability Evaluation of Specific Shallow Geothermal Technologies Using a GIS-Based Multi Criteria Decision Analysis Implementing the Analytic Hierarchic Process. ENERGIES, vol. 11, p. 457-478, ISSN: 1996-1073, doi:	Paper on International Scientific Journal

	10.3390/en11020457	
2018	Lanconelli M., Voza A., Egger H., Zurlo R., Boldini D., Tinti F. , Ferrari M., Kasmaeeyazdi S. (2018). Studio di fattibilità per lo sfruttamento geotermico delle Gallerie del Brennero. GALLERIE E GRANDI OPERE SOTTERRANEE, vol. 126, p. 35-47, ISSN: 0393-1641	Paper on International Scientific Journal
2018	Kasmae S., Tinti F. , Bruno R. (2018). Characterization of metal grades in a stockpile of an Iron Mine (Case study - Choghart iron mine, Iran). RUDARSKO-GEOLOSKO-NAFTNI ZBORNIK (MINING-GEOLOGY-PETROLEUM-BULLETIN), vol. 33, p. 51-59, ISSN: 0353-4529, doi: 10.17794/rgn.2018.2.5	Paper on International Scientific Journal
2018	Tinti F. , Carri A., Kasmae S., Valletta A., Segalini A., Bonduà S., Bortolotti V. (2018). Ground temperature monitoring for a coaxial geothermal heat exchangers field: practical aspects and main issues from the first year of measurements. RUDARSKO-GEOLOSKO-NAFTNI ZBORNIK (MINING-GEOLOGY-PETROLEUM-BULLETIN), vol. 33, p. 47-57, ISSN: 0353-4529, doi: 10.17794/rgn.2018.5.5	Paper on International Scientific Journal
2018	Kasmae S., Tinti F. (2018). A method to evaluate the impact of urbanization on ground temperature evolution at regional scale. RUDARSKO-GEOLOSKO-NAFTNI ZBORNIK (MINING-GEOLOGY-PETROLEUM-BULLETIN), vol. 33, p. 1-12, ISSN: 0353-4529, doi: 10.17794/rgn.2018.5.1	Paper on International Scientific Journal
2018	Kasmaeeyazdi S., Tinti F. , Bruno R. (2018). Contribution of geostatistics in mapping subsoil temperature evolution in urban areas. In: Book of Abstracts of GEOENV 2018: 12th INTERNATIONAL CONFERENCE ON GEOSTATISTICS FOR ENVIRONMENTAL APPLICATIONS, Queen's University, Belfast, 4-6 July 2018	Presentation to International Conference
2018	Elkarmoty M., Tinti F. , Kasmaeeyazdi S., Giannino F., Bonduà S., Bruno R. (2018). Implementation of a Fracture Modeling Strategy Based on Georadar Survey in a Large Area of Limestone Quarry Bench. GEOSCIENCES, vol. 8, p. 1-15, ISSN: 2076-3263, doi: 10.3390/geosciences8120481	Paper on International Scientific Journal
2018	Elkarmoty M., Tinti F. , Kasmaeeyazdi S., Bonduà S., Bruno R. (2018). 3D modeling of discontinuities using GPR in a commercial size ornamental limestone block. CONSTRUCTION AND BUILDING MATERIALS, vol. 166, p. 81-86, ISSN: 0950-0618, doi: 10.1016/j.conbuildmat.2018.01.091	Paper on International Scientific Journal
2018	Brunelli D., Bedeschi E., Ferrari M., Tinti F. , Barbaresi A., Benini L. (2018). Long-range Radio for Underground Sensors in Geothermal Energy Systems. In: Applications in Electronics Pervading Industry, Environment and Society: ApplePies 2016. LECTURE NOTES IN ELECTRICAL ENGINEERING, vol. 429, p. 3-11, Cham: Springer, ISBN: 9783319550701, ISSN: 1876-1100, Roma, Italy, 15-16 September 2016, doi: 10.1007/978-3-319-55071-8_1	Presentation to International Conference
2018	Tinti F. , Azzolin M., Bonduà S., Zanetti E., Bortolin S., Bortolotti V. (2018) La simulazione accoppiata edificio/macchine termiche/serbatoio per una corretta previsione dell'approvvigionamento e stoccaggio di energia termica nel sottosuolo. In: Proceedings, GEOFLUID 2018, Utilizzi innovativi della geotermia: lo stoccaggio del calore nel sottosuolo, Piacenza fair, 3 October 2018	Presentation to National Congress
2018	Tinti F. , Focaccia S., Barbaresi A., Mandanici E. (2018) Una nuova configurazione di sistema geotermico superficiale, per massimizzare il potenziale di stoccaggio di calore nel sottosuolo. In: Proceedings, GEOFLUID 2018, Utilizzi innovativi della geotermia: lo stoccaggio del calore nel sottosuolo, Piacenza fair, 3 October 2018	Presentation to National Congress
2017	Tinti F. , Barbaresi A., Torreggiani D., Brunelli D., Ferrari M., Verdecchia A., Bedeschi E., Tassinari P., Bruno R. (2017). Evaluation of efficiency of hybrid geothermal basket/air heat pump on a case study winery based on experimental data. ENERGY AND BUILDINGS, vol. 151, p. 365-380, ISSN: 0378-7788, doi: 10.1016/j.enbuild.2017.06.055	Paper on International Scientific Journal
2017	Tinti F. , Barbaresi A., Ferrari M., Elkarmoty M., Torreggiani D., Tassinari	Paper on

	P., Bonduà S. (2017). Experimental calibration of underground heat transfer models under a winery building in a rural area. RUDARSKO-GEOLOSKO-NAFTNI ZBORNİK (MINING-GEOLOGY-PETROLEUM-BULLETIN), vol. 32, p. 35-43, ISSN: 0353-4529, doi: 10.17794/rgn.2017.3.4	International Scientific Journal
2017	Elkarmoty M., Colla C., Gabrielli E., Kasmaeeyazdi S., Tinti F. , Bonduà S., Bruno R. (2017). Mapping and modelling fractures using ground penetrating radar for ornamental stone assessment and recovery optimization: Two case studies. RUDARSKO-GEOLOSKO-NAFTNI ZBORNİK (MINING-GEOLOGY-PETROLEUM-BULLETIN), vol. 32 (4), p. 63-76, ISSN: 0353-4529, doi: 10.17794/rgn.2017.4.7	Paper on International Scientific Journal
2017	Tinti F. , Boldini D., Ferrari M., Lanconelli M., Kasmaeeyazdi S., Bruno R., Egger H., Voza A., Zurlo R. (2017). Exploitation of geothermal energy using tunnel lining technology in a mountain environment. A feasibility study for the Brenner Base tunnel - BBT. TUNNELLING AND UNDERGROUND SPACE TECHNOLOGY, vol. 70, p. 182-203, ISSN: 0886-7798, doi: 10.1016/j.tust.2017.07.011	Paper on International Scientific Journal
	Benni S., Tinti F. , Barbaresi A., Ferrari M., Bruno R., (..) Tassinari P. (2016) Experimental models of underground temperature for decision making in wine cellar design (2016) In: Proceedings: 44th INTERNATIONAL SYMPOSIUM ON ACTUAL TASKS ON AGRICULTURAL ENGINEERING Location: Opatija, CROATIA Date: FEB 23-26, 2016	Presentation to International Conference
2016	Tinti F. , Kasmaeeyazdi S., Elkarmoty M., Bonduà S., Bortolotti V., Bruno R. (2016). Macro-scale underground geomechanical and thermal mapping for very shallow geothermal applications. In: Book of Abstracts GEOENV 2016: 11th INTERNATIONAL CONFERENCE ON GEOSTATISTICS FOR ENVIRONMENTAL APPLICATIONS, Instituto Superior Técnico, Universidade de Lisboa, 6-8 July 2016.	Presentation to International Conference
2016	Focaccia S., Tinti F. , Monti F., Amidei S., Bruno R. (2016). Shallow geothermal energy for industrial applications: A case study. SUSTAINABLE ENERGY TECHNOLOGIES AND ASSESSMENTS, vol. 16, p. 93-105, ISSN: 2213-1388, doi: 10.1016/j.seta.2016.05.003	Paper on International Scientific Journal
2016	Tinti F. , Pangallo A., Berneschi M. [...], Meggiolaro M. (2016). How to boost shallow geothermal energy exploitation in the Adriatic area: The LEGEND project experience. ENERGY POLICY, vol. 92, p. 190-204, ISSN: 0301-4215, doi: 10.1016/j.enpol.2016.01.041	Paper on International Scientific Journal
2016	Bruno R., Tinti F. , Focaccia S. (2016) Estimating Thermal Response Test Coefficients: Choosing Coordinate Space of The Random Function. MATHEMATICAL GEOSCIENCES, vol. 48(1), p. 3-23, ISSN: 1874-8961, doi: 10.1007/s11004-015-9612-z	Paper on International Scientific Journal
2016	Verdecchia A., Brunelli D., Tinti F. , Barbaresi A., Tassinari P., Benini L. (2016). Low-cost micro-thermal response test system for characterizing very shallow geothermal energy. In: Proceedings. 2016 IEEE WORKSHOP ON ENVIRONMENTAL, ENERGY AND STRUCTURAL MONITORING SYSTEMS (EESMS). p. 1-6, ISBN: 978-1-5090-2370-7, Bari, 13-14 June 2016, doi: 10.1109/EESMS.2016.7504817	Presentation to International Conference
2016	Kasmae S., Tinti F. , Ferrari M., [...], Voza A., Zurlo R. (2016) Use of Universal Kriging as a tool to estimate mountain temperature distribution affected by underground infrastructures: the case of the Brenner Base Tunnel. In: Proceedings. 2016 EUROPEAN GEOTHERMAL CONGRESS. Strasbourg, France, 19-24 September 2016.	Presentation to International Conference
2016	Ferrari M., Barbaresi A., Tinti F. , [...], Tassinari P. (2016) Performance evaluation of a homemade cylindrical basket heat exchanger, by a multi-sensors monitoring campaign. In: Proceedings. 2016 EUROPEAN GEOTHERMAL CONGRESS. Strasbourg, France, 19-24 September 2016.	Poster at International Conference
2016	Tinti F. (2016). Sistemi di geoscambio non convenzionali e le geostrutture energetiche: spunti sullo stato dell'arte a livello europeo. In: Proceedings GEOFLUID 2016. Problemi di Geingegneria. Le pompe di calore geotermiche e lo stoccaggio del calore nel sottosuolo, Piacenza fair, 5	Presentation to National Congress

	October 2016	
2015	Rajver D., Prestor J., Tinti F. (2015). Comparison of Geological and Shallow Geothermal Characteristics of some Adriatic Regions in the Circum-Adriatic Countries (LEGEND project). In: Proceedings WORLD GEOTHERMAL CONGRESS 2015. p. 1-15, Melbourne, Australia, 19-25 April 2015	Presentation to International Conference
2015	Tinti F. , Barbaresi A., Benni S., Torreggiani D., Bruno R., Tassinari P. (2015). Experimental analysis of thermal interaction between wine cellar and underground. ENERGY AND BUILDINGS, vol. 104, p. 275-286, ISSN: 0378-7788, doi: 10.1016/j.enbuild.2015.07.025	Paper on International Scientific Journal
2015	Tinti F. , Bruno R., Focaccia S. (2015). Thermal response test for shallow geothermal applications: a probabilistic analysis approach. GEOTHERMAL ENERGY, vol. 3:6, p. 1-20, ISSN: 2195-9706, doi: 10.1186/s40517-015-0025-5	Paper on International Scientific Journal
2015	Maioli V., Tinti F. , Bruno R. (2015). Geothermal snow melting: un valore aggiunto a costo contenuto, anche a Bologna. INARCOS, vol. 3. Anno LXIX, p. 65-71, ISSN: 0391-6537	Paper on National Technical Journal
2014	Tinti F. (2014). Edilizia Scolastica. Un caso di studio: IIS Guido Monaco di Pomposa. CASA & CLIMA, vol. 50, p. 30-31, ISSN: 2038-0895	Paper on National Technical Journal
2014	Giambastiani B.M.S., Tinti F. , Mendrinos D., Mastrocicco M. (2014). Energy performance strategies for the large scale introduction of geothermal energy in residential and industrial buildings: The GEO.POWER project. ENERGY POLICY, vol. 65, p. 315-322, ISSN: 0301-4215, doi: 10.1016/j.enpol.2013.10.008	Paper on International Scientific Journal
2014	Tinti F. , Barbaresi A., Benni S., Torreggiani D., Bruno R., Tassinari P. (2014). Experimental analysis of shallow underground temperature for the assessment of energy efficiency potential of underground wine cellars. ENERGY AND BUILDINGS, vol. 80, p. 451-460, ISSN: 0378-7788, doi: 10.1016/j.enbuild.2014.06.002	Paper on International Scientific Journal
2014	Bruno R., Tinti F. (2014). Estimation of coefficients of thermal response test: the choice of the coordinates of the random function. In: GEOSTATISTICS FOR ENVIRONMENTAL APPLICATIONS. GEOENV 2014. p. 1-4, PARIS: MINES ParisTech, Paris, 9-11 July 2014.	Presentation to International Conference
2013	Focaccia S., Tinti F. , Bruno R. (2013). A software tool for geostatistical analysis of thermal response test data: GA-TRT. COMPUTERS & GEOSCIENCES, vol. 59, p. 163-170, ISSN: 0098-3004, doi: 10.1016/j.cageo.2013.06.003	Paper on International Scientific Journal
2013	Focaccia S., Tinti F. (2013). An innovative Borehole Heat Exchanger configuration with improved heat transfer. GEOTHERMICS, vol. 48, p. 93-100, ISSN: 0375-6505, doi: 10.1016/j.geothermics.2013.06.003	Paper on International Scientific Journal
2013	Bruno R., Mercuri S., Tinti F. , Witte H. (2013) Probabilistic approach to TRT analysis: evaluation of groundwater flow effects and machine - borehole interaction. In: Proceedings. 2013 EUROPEAN GEOTHERMAL CONGRESS. Pisa, Italy, 3-7 June 2013.	Presentation to International Conference
2012	Tinti F. (2012) The Support Effect on the definition of the Undisturbed Ground Temperature and its impact on Thermal Response Test analysis EUROPEAN GEOTHERMAL PHD DAY, 3° EDITION Scuola Superiore Sant'Anna, Pisa	Poster at International Conference
2012	Giambastiani B.M.S, Pangallo A., Tinti F. , Mastrocicco M. (2012). Geo.Power Project: SWOT Analysis and Transferability Assessment of Ground-Coupled Heat Pump (GCHP) Systems into the Province of Ferrara. In proceedings volume I. 7TH EUREGEO. EUROPEAN CONGRESS ON REGIONAL GEOSCIENTIFIC CARTOGRAPHY AND SUSTAINABLE INFORMATION geo-management SYSTEMS. Bologna. 12 - 15 giugno 2012. (pp. 181 – 182)	Presentation to International Conference

2012	Biondi D., Tinti F. , Cesari G. (2012). Metodo innovativo per le discariche: lo stoccaggio di energia termica. RS RIFIUTI SOLIDI, vol. 3, p. 135-140, ISSN: 0394-5391	Paper on National Technical Journal
2011	Bruno R., Focaccia S., Tinti F. (2011). Geostatistical modeling of a shallow geothermal reservoir for air conditioning of buildings. In: IAMG 2011 MATHEMATICAL GEOSCIENCES AT THE CROSSROADS OF THEORY AND PRACTICE. p. 146-163, HOUSTON:IAMG , Salzburg, September 5 - 9 2011, doi: 10.5242/iamg.2011.0305	Presentation to International Conference
2011	Focaccia S., Bruno R., Tinti F. (2011). Analysis of thermal response test data. EUROPEAN GEOTHERMAL PHD DAY, 2° EDITION, ISOR, Reykjavik (Iceland)	Poster at International Conference
2011	Chiavetta C., Tinti F. , Bonoli A. (2011). Comparative life cycle assessment of renewable energy systems for heating and cooling. PROCEEDIA ENGINEERING, vol. 21, p. 591-597, INTERNATIONAL CONFERENCE ON GREEN BUILDINGS AND SUSTAINABLE CITIES. Ravenna. 16 September 2011. ISSN: 1877-7058, doi: 10.1016/j.proeng.2011.11.2054.	Presentation to International Conference
2011	Biondi D., Cesari G., Tinti F. (2011). Una nuova opportunità per le discariche: lo stoccaggio di energia termica. In Proceedings. SARDINIA 2011, THIRTEENTH INTERNATIONAL WASTE MANAGEMENT AND LANDFILL SYMPOSIUM Santa Margherita di Pula (Cagliari). 03 - 07 ottobre 2011. (pp. 1 - 9).	Presentation to International Conference
2011	Bruno R., Tinti F. (2011). Lo sfruttamento termico del sottosuolo. ECOSCIENZA, vol. 2 / 11, p. 28-29, ISSN: 2039-0424	Paper on National Technical Journal
2010	Bruno R., Focaccia S., Tinti F. (2010). Test di risposta termica per la geotermia superficiale: un approccio geostatistico. ENGINEERING, HYDRO, ENVIRONMENTAL GEOLOGY, vol. 14, p. 61-69, ISSN: 2038-0801, doi: 10.474/EHEGeology.2011-14.0-07.0258	Paper on National Technical Journal
2010	Bruno R., Focaccia S., Tinti F. (2010). Geostatistical modeling of a shallow geothermal reservoir EUROPEAN GEOTHERMAL PHD DAY, 1° EDITION, GFZ, Potsdam (Germany)	Poster at International Conference
2010	Bruno R., Focaccia S., Tinti F. (2010). Test di Risposta Termica per la geotermia superficiale: un approccio geostatistico. ACQUE SOTTERRANEE, vol. 122, p. 37-41, ISSN: 1828-454X	Paper on National Technical Journal
2010	Bruno R., Focaccia S., Tinti F. (2010). Thermal Response Test: a geostatistical approach GEOTHERMAL ENERGY EXHIBITION, 2 nd EDITION, Ferrara (Italy)	Poster at National Congress
2009	Bruno R., Focaccia S., Tinti F. (2009). La caractérisation d'un réservoir géothermique superficiel (à basse enthalpie). Recueil des résumés de «LES JOURNEES DE GEOSTATISTIQUE». LES JOURNEES DE GEOSTATISTIQUE. Fontainebleau, France. 24 & 25 September 2009. (pp. 29 - 31). PARIS: MINES ParisTech	Presentation to International Conference
2009	Bruno R., Tinti F. (2009). Sistemi geotermici per il condizionamento. LA TERMOTECNICA, vol. Anno LXIII, N.4, Maggio 2009, p. 30-33, ISSN: 0040-3725	Paper on National Technical Journal
2009	Bruno R., Tinti F. , Focaccia S., Mantar S. (2009) Recent developments of thermal response test. (poster) GEOTHERMAL ENERGY EXHIBITION, 1 ST EDITION, Ferrara (Italy)	Poster at National Congress
2009	Tinti F. , Cesari G. (2009) Criteri di progettazione ed installazione di campi sonda geotermici, GEOTHERMAL ENERGY EXHIBITION, 1 ST EDITION, Ferrara (Italy)	Poster at National Congress
2009	Tinti F. (2009) Edificio bioecologico con monitoraggio in tempo reale. TETTO E PARETI n°34, pp. 30 – 37. FORLI, Ca' Zorzi Editore, Italy	Paper on National Technical

		Journal
2009	Tinti F. (2009) The importance of measuring on site the ground thermal properties for the design of a borehole heat exchangers system: Case studies of Ground Response Tests in different geological backgrounds. <i>RENDICONTI ONLINE SOCIETA' GEOLOGICA ITALIANA</i> , 6, 2009, pp. 445-446, 3° Congresso Nazionale A.I.G.A. Associazione Italiana Geologia Applicata e Ambientale	Presentation to National Congress
2009	Cesari G., Tinti F. , Gorgoni C., Menichetti M., Renzulli A. (2009) Geothermal potential of Emilia Romagna and Marche. Developments and future prospects for non-electrical, low temperature applications, SEMINAR ON "REGIONAL DEVELOPMENTS OF GEOTHERMAL RESOURCES IN ITALY" 06-03-2009, Geotherm Expo Fair & Congress, Offenburg (Germany)	Presentation to International Conference
2004	Zecchi R., Tinti F. , Analisi della velocità della migrazione dei meandri del Fiume Mella in prossimità della confluenza con il fiume Oglio (Lombardia - Italy), in: ASITA, Atti VIII Conferenza Nazionale, ROMA, ASITA, 2004, 1, pp. 823 – 827, 8 novembre 2004	Presentation to National Congress

Supervision of Researchers and Academic Visitors

Year	Title	Type
2019	Gholamnejad J., Visiting Professor from University of Yazd, Iran, 3 months	Responsible of the stay
2019	Kurevija T., Invited Researcher to held a Seminar for PhD Students, from University of Zagreb, Croatia, 2 days <u>Seminar title:</u> usage of Thermal Response Tests for a proper sizing of geothermal exchange systems	Responsible of the stay
2018	Cazorla-Marín A., Visiting PhD Student from Polytechnic University of Valencia, Spain, 3 months	Responsible of the stay
2017	Kasmaee S., Winner of MAECI Scholarship from Italian Ministry of Foreign Affairs to support Foreigner Researchers in Italy, 9 months <u>Scholarship title:</u> Studio dell'influenza delle zone di transizione geologica sul potenziale di estrazione dell'energia geotermica (Assessment of the influence of transitional geological boundaries on geothermal energy exploitation)	Tutor of activity

Organisation of scientific and technical meetings

Year	Title	Role
2021	2 st Round Table for Experts of INCO-Piles 2020 Project held in hybrid mode – physically besides the RawMat2021 Conference in Greece (8 September 2021)	Member of the Organising Committee
2021	3 rd Project Meeting of INCO-Piles 2020 Project, held in videoconference (30 June 2021)	Main organiser
2020	1 st Round Table for Experts of INCO-Piles 2020 Project held in hybrid mode – physically at University of Bologna and videoconference (in progress – 11 December 2020)	Member of the Organising Committee
2020	2 nd Project Meeting of INCO-Piles 2020 Project, held in videoconference (10 December 2020)	Main organiser
2020	Kick Off Meeting of INCO-Piles 2020 Project, held in videoconference (April 2020)	Main organiser
2019	2 nd RawMatCop Short Course, held at University of Bologna (June 2019)	Member of the Organising Committee
2018	7 th General Assembly of GEOTeCH Project, held at University of Bologna (November 2018).	Main organiser
2016	13 th International Bologna Conference on Magnetic Resonance in Porous Media, held at University of Bologna	Member of the Organising Committee
2014	3 rd Meeting of Europeaid E4EM Project, held at University of Bologna	Member of the Organising Committee
2012	Kick Off Meeting of Europeaid E4EM Project, held at University of	Member of the

	Bologna	Organising Committee
2010	6 th Meeting of IEA-ECES ANNEX 21 Thermal Response Test, held at University of Bologna.	Member of the Organising Committee

Editorial role and scientific membership

Year	Title	Role
2020	MatGeo2020 Mathematical methods and terminology in geology, 10-11 October 2020, Faculty of Mining, Geology and Petroleum Engineering, University of Zagreb	Member of the Scientific Committee
2018	MatGeo2018 Mathematical methods and terminology in geology, 6th October 2018, Faculty of Mining, Geology and Petroleum Engineering, University of Zagreb	Member of the Scientific Committee
2018	Special Issue - Thermal, Hydraulic and Geomechanical aspects in Geothermal Engineering – Mining, Geology and Petroleum Bulletin (Rudarsko Geolosko Naftni Zbornik).	Guest Editor
2016-	Journal Mining, Geology and Petroleum Bulletin (Rudarsko Geolosko Naftni Zbornik). Faculty of Mining, Geology and Petroleum, University of Zagreb, Croatia	Member of the Editorial Board
2011-	International Association for Mathematical Geosciences IAMG	Affiliated Member
2010-	Italian Geothermal Union UGI	Affiliated Member

Reviewer activity

Period	Journal	N° of reviewed papers
2018-2021	Rudarsko-Geolosko-Naftni-Zbornik (Mining-Geology-Petroleum-Bulletin) (UNIVERSITY OF ZAGREB)	7
2017-2021	Energy Reports, Renewable and Sustainable Energy Reviews, Journal of Cleaner Production, Journal of Building Engineering, Tunnelling and Underground Space Technology, Geothermics, Thermal Science and Engineering Progress, Applied Energy, Energy and Buildings (ELSEVIER)	30
2017-2021	Energies, Applied Sciences, Water, Geosciences, Sustainability (MDPI)	25

Prizes and Scientific awards

Year	Research product granted	Title of the award
2018	Tinti F. , Boldini D., Ferrari M., Lanconelli M., Kasmaeeyazdi S., Bruno R., Egger H., Voza A., Zurlo R. (2017). Exploitation of geothermal energy using tunnel lining technology in a mountain environment. A feasibility study for the Brenner Base tunnel - BBT. TUNNELLING AND UNDERGROUND SPACE TECHNOLOGY, vol. 70, p. 182-203, ISSN: 0886-7798, doi: 10.1016/j.tust.2017.07.011	“DICAM Best Paper Award 2018” granted by Department of Civil, Chemical, Environmental and Materials Engineering for the best Scientific Paper published by the Department in year 2017
2007	Tinti F. (2007) Thermal exchange models in well based upon geothermal characterization of a low enthalpy reservoir – Sensitivity study on the efficiency of conditioning systems with heat pump (Modelli di scambio termico in pozzo sulla base della caratterizzazione geotermica di un reservoir a bassa entalpia: studio di sensitività sulla efficienza dei sistemi di condizionamento a pompa di calore). Master Thesis in Environmental Engineering. Tutor: Prof. R. Bruno	“Gustavo Sclocchi Thesis Award 2007” Granted by Society of Petroleum Engineering (SPE) and European Association of Geoscientists and Engineers (EAGE) for the best Italian thesis on geothermal resource