

CURRICULUM VITAE di:

Nominativo	Valeria Cannillo
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Posizione accademica

Macrosettore:	09 – INGEGNERIA INDUSTRIALE E DELL'INFORMAZIONE
Settore Concorsuale:	09/D1
Settore Scientifico Disciplinare:	ING-IND/22
Qualifica:	Professore Associato
Anzianità nel ruolo:	14 anni (dal 20/04/05)
Sede Universitaria:	Università di Modena e Reggio Emilia
Struttura di appartenenza (dipartimento o altro)	Dipartimento di Ingegneria "Enzo Ferrari"

Posizioni ricoperte precedentemente nel medesimo ateneo o in altri

Periodo	Fascia	Ateneo
16/12/01-19/04/05	Ricercatore	Università di Modena e Reggio Emilia
20/04/05-oggi	Professore Associato	Università di Modena e Reggio Emilia

Pubblicazioni Scientifiche

1. V. Cannillo, W. C. Carter, Computation and Simulation of Reliability Parameters and their Variations in Heterogeneous Materials, *Acta Materialia*, 48, 3593-3605, 2000. [doi:10.1016/S1359-6454\(00\)00089-6](https://doi.org/10.1016/S1359-6454(00)00089-6)
2. V. Cannillo, M. Mancuso, Spurious resonances in numerical time integration methods for linear dynamics, *Journal of Sound and Vibration*, 238, 389-399, 2000. [doi:10.1006/jsvi.2000.3104](https://doi.org/10.1006/jsvi.2000.3104)
3. V. Cannillo, C. Leonelli, Modeling and simulations at microscopical scale in materials science and engineering: a review, *Materials Engineering* 12, 73-83, 2001.

4. M. Cannarozzi, V. Cannillo, Numerical simulations for the crashworthiness design of metal frames. *Materials Engineering*, 12, 207-215, 2001.
5. C. Leonelli, F. Bondioli, P. Veronesi, M. Romagnoli, T. Manfredini, G.C. Pellacani, V. Cannillo. Enhancing the mechanical properties of porcelain stoneware tiles: a microstructural approach, *Journal of the European Ceramic Society*, 21, 785-793, 2001. doi:10.1016/S0955-2219(00)00266-1
6. C. Leonelli, P. Veronesi, V. Cannillo, G.C. Pellacani, A.R. Boccaccini. Porcelain stoneware as a composite material: identification of strengthening and toughening mechanisms, *Tile & Brick International*, 17 [4], 238-245, 2001.
7. V. Cannillo, M. Mancuso. On the behavior of dissipative time integration methods near the resonance condition. *Journal of Sound and Vibration*, 249, 599-605, 2002. doi: 10.1006/jsvi.2001.3739
8. V. Cannillo, A. Corradi, C. Leonelli, A.R. Boccaccini. A simple approach for determining the "in-situ" fracture toughness of ceramic platelets used in composite materials by numerical simulations, *Journal of Materials Science Letters*, 20, 1889-1891, 2001. doi: 10.1023/A:1012870110675
9. C. Leonelli, F. Bondioli, P. Veronesi, V. Cannillo, M. Romagnoli, T. Manfredini. Micromechanics principles applied to fracture propagation in porcelain stoneware tiles, edited by W.M. Carty, *Ceramic Engineering & Science Proceedings*, 22 [2], 191-199, 2001.
10. V. Cannillo, T. Manfredini, A. Corradi, W.C. Carter, Numerical Models of the Effect of Heterogeneity on the Behavior of Graded Materials. *Key Engineering Materials*, Vols. 206-213, 2163-2166, 2002, Trans Tech Publications, Switzerland.
11. V. Cannillo, C. Leonelli, A. Boccaccini. Numerical models for thermal residual stresses in Al_2O_3 platelets/borosilicate glass matrix composites, *Materials Science and Engineering A*, 323, 246-250, 2002. doi: 10.1016/S0921-5093(01)01345-4
12. A. R. Boccaccini, J. L. Spino, V. Cannillo, Hermetic Glass Bodies with Controlled Porosity: Processing and Properties, *Ceramic Engineering & Science Proceedings*, 23 [4], 191-202, 2002. (ISSN 0196-6219)
13. V. Cannillo, G.C. Pellacani, C. Leonelli, A.R. Boccaccini. Numerical modeling of the fracture behavior of a glass matrix composite reinforced with alumina platelets, *Composites Part A*, 34, 43-51, 2003. doi: 10.1016/S1359-835X(02)00230-0
14. V. Cannillo, W.C. Carter, Stochastic modeling of the mechanical behavior and reliability of brittle or moderately damage-tolerant materials, *Computational Modelling and Simulation of Materials II* (Ed. P. Vincenzini and A. Lami), *Advances in Science and Technology*, 36, 173-180, 2003. (ISBN 88-86538-38-3)
15. A. Bonamartini Corradi, V. Cannillo, M. Montorsi, Short range order characterization of materials belonging to the $\text{CaO-MgO-Al}_2\text{O}_3\text{-SiO}_2$ system: a molecular dynamic study, *Materials Engineering*, 14, 87-96, 2003.
16. L. Barbieri, V. Cannillo, C. Leonelli, M. Montorsi, P. Mustarelli, C. Siligardi, Experimental and MD simulations study of $\text{CaO-ZrO}_2\text{-SiO}_2$ glasses, *Journal of Physical Chemistry B*, 107, 6519-6525, 2003. doi: 10.1021/jp022551c
17. Valeria Cannillo, Tiziano Manfredini, Monia Montorsi, Simulazioni computazionali per lo studio di materiali di interesse applicativo, *Ceram. Info.*, 427, 717-720, 2003.

18. V. Cannillo, C. Leonelli, T. Manfredini, M. Montorsi, A.R. Boccaccini, Computational simulations for the assessment of the mechanical properties of glass with controlled porosity, *J. Porous Materials*, 10, 189-200, 2003. doi: [10.1023/A:1027490502044](https://doi.org/10.1023/A:1027490502044)
19. V. Cannillo, T. Manfredini, M. Montorsi, C. Siligardi, A.Sola, Functionally Graded Materials: a review of fabrication processes and modelling of properties, *Materials Engineering*, 14 [3], 207-228, 2003.
20. V. Cannillo, C. Leonelli, M. Montorsi, M. Romagnoli, P. Veronesi, Experimental results and numerical modelling of the fracture behavior of ceramic refractory plates, *Tile & Brick International*, 19[5], 324-327, 2003.
21. L. Barbieri, V. Cannillo, C. Leonelli, M. Montorsi, C. Siligardi, P. Mustarelli, Characterization of CaO-ZrO₂-SiO₂ glasses by MAS-NMR and Molecular Dynamics, *Phys. Chem. Glasses*, 45, 138-140, 2004.
22. A.R. Boccaccini, V. Cannillo, C. Leonelli, P. Veronesi, Porous glasses with controlled porosity: processing and modelling of mechanical properties, *Key Engineering Materials*, Vols. 264-268, 2243-2246, 2004, Trans Tech Publications, Switzerland. (ISSN: 1013-9826) (ISBN 0-87849-946-6)
23. E. Minay, P. Veronesi, V. Cannillo, C. Leonelli, A.R. Boccaccini, Control of pore size by metallic fibres in glass matrix composite foams produced by microwave heating, *Journal of the European Ceramic Society*, 24, 3203-3208, 2004 doi: [10.1016/j.jeurceramsoc.2003.11.015](https://doi.org/10.1016/j.jeurceramsoc.2003.11.015)
24. V. Cannillo, T. Manfredini, M. Montorsi, A.R. Boccaccini, Use of numerical approaches to predict mechanical properties of brittle bodies containing controlled porosity, *Journal of Materials Science*, 39, 4335-4337, 2004. doi: [10.1023/B:JMS.0000033420.53758.a5](https://doi.org/10.1023/B:JMS.0000033420.53758.a5)
25. V. Cannillo, T. Manfredini, I materiali nanostrutturati: preparazione, proprietà e prospettive di applicazione dei nanoceramici, *Ceram. Info.*, 434 445-449, 2004.
26. E.J. Minay, A.R. Boccaccini, P. Veronesi, V. Cannillo, C. Leonelli, Processing of Novel Glass Matrix Composites by Microwave Heating, *Journal of Materials Processing Technology*, 155-156, 1749-1755, 2004. doi: [10.1016/j.jmatprotec.2004.04.264](https://doi.org/10.1016/j.jmatprotec.2004.04.264)
27. V. Cannillo, T. Manfredini, M. Montorsi, A.R. Boccaccini, Investigation of the mechanical properties of Mo reinforced glass matrix composites, *Journal of Non-Crystalline Solids*, 344, 88-93, 2004. doi: [10.1016/j.jnoncrysol.2004.07.030](https://doi.org/10.1016/j.jnoncrysol.2004.07.030)
28. M. Avella, F. Bondioli, V. Cannillo, M. E. Errico, A. M. Ferrari, B. Focher, M. Malinconico, T. Manfredini, M. Montorsi, Preparation, characterisation and computational study of poly(ϵ -caprolactone) based nanocomposites, *Materials Science and Technology*, 20 [10], 1340-1344, 2004. doi: [10.1179/026708304225022278](https://doi.org/10.1179/026708304225022278)
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32. V. Cannillo, T. Manfredini, M. Montorsi, C. Siligardi, A. Sola, Experimental characterization and computational simulation of glass-alumina Functionally Graded Surfaces, *Materials Science Forum*, vols. 492-493, 647-652, 2005.
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35. A. Bonamartini Corradi, V. Cannillo, M. Montorsi, C. Siligardi, A.N. Cormack, Structural characterization of neodymium containing glasses by molecular dynamics simulation, *Journal of Non-Crystalline Solids*, 351, 1185-1191, 2005. doi: [10.1016/j.jnoncrysol.2005.03.002](https://doi.org/10.1016/j.jnoncrysol.2005.03.002)
36. V. Cannillo, C. Leonelli, T. Manfredini, M. Montorsi, P. Veronesi, E.J. Minay, A.R. Boccaccini, Mechanical performance and fracture behaviour of glass matrix composites reinforced with molybdenum particles, *Composites Science and Technology*, 65, 1276-1283, 2005. doi: [10.1016/j.compscitech.2004.12.035](https://doi.org/10.1016/j.compscitech.2004.12.035)
37. A. Bonamartini Corradi, F. Bondioli, V. Cannillo, A. M. Ferrari, I. Lancellotti, M. Montorsi, The anorthite-diopside system: structural and devitrification study. Part I: structural characterization by molecular dynamic simulations, *Journal of the American Ceramic Society*, 88, 714-718, 2005. doi: [10.1111/j.1551-2916.2005.00142.x](https://doi.org/10.1111/j.1551-2916.2005.00142.x)
38. G. Bolelli, V. Cannillo, L. Lusvarghi, T. Manfredini, C. Siligardi, C. Bartuli, A. Loreto, T. Valente, Plasma-sprayed glass-ceramic coatings on ceramic tiles: microstructure, chemical resistance and mechanical properties, *Journal of the European Ceramic Society*, 25, 1835-1853, 2005. doi: [10.1016/j.jeurceramsoc.2004.06.018](https://doi.org/10.1016/j.jeurceramsoc.2004.06.018)
39. V. Cannillo, T. Manfredini, M. Montorsi, F. Tavoni, E.J. Minay, A.R. Boccaccini, Characterization of glass matrix composites reinforced with lead zirconate titanate particles, *Materials Science and Engineering A*, 399, 281-291, 2005. doi: [10.1016/j.msea.2005.03.085](https://doi.org/10.1016/j.msea.2005.03.085)
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44. V. Cannillo, A.R. Boccaccini, Microstructure-based finite element modelling of the mechanical properties of particulate brittle matrix composites and of porous solids, in "Multi-scale Modelling of Composite Material Systems - the Art of Predictive Damage Modelling", Edited by C. Soutis and P.W.R. Beaumont, pag 356-373, 2005, Woodhead Publishing Limited.

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66. J. Goossens, P. Leclaire, X. Xu, C. Glorieux, L. Martinez, A. Sola, C. Siligardi, V. Cannillo, T. Van der Donck, J.P. Celis, Surface acoustic wave depth profiling of a functionally graded material, *Journal of Applied Physics*, 102, 053508, 2007. doi: [10.1063/1.2774002](https://doi.org/10.1063/1.2774002)
67. V. Cannillo, T. Manfredini, A. Motori, F. Patuelli, A. Saccani, A. Sola, Technological properties of felsian reinforced glass matrix composites *Ceramics International*, 33, 1597-1601, 2007. doi: [10.1016/j.ceramint.2006.07.011](https://doi.org/10.1016/j.ceramint.2006.07.011)
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Titoli

Direzione o partecipazione a comitati di direzione di riviste Scopus/WOS o classificate da ANVUR, nonché di collane editoriali, enciclopedie e trattati di riconosciuto prestigio nel settore/Partecipazione a comitati di redazione di riviste Scopus/WOS o classificate da ANVUR, nonché di collane editoriali, enciclopedie e trattati di riconosciuto prestigio nel settore:

- Ha fatto parte dell'Editorial Board del Journal of Tribology and Surface Engineering
- Fa parte dell'Editorial board di Biomedical Glasses da 07/2014 ad oggi, (<https://www.degruyter.com/view/j/bglass>).

-Fa parte dell'Editorial board di Materials come Section Editor, Biomaterials dal 03/2019 ad oggi (<https://www.mdpi.com/journal/materials/editors>).

-È stata Editor per la Special Issue del *International Journal of Materials and Product Technology*, dal titolo "Advanced ceramics: innovative strategies for their preparation, characterization and modelling".

-Attualmente è Guest Editor della special issue "Spotlight on Bioactive Glasses and their related composites" di Materials (<https://www.mdpi.com/journal/materials>).

Partecipazione al collegio dei docenti nell'ambito di dottorati di ricerca accreditati dal Ministero:

-Ha fatto parte del Collegio Docenti del Dottorato di Ricerca in "Modellistica, Simulazione e Caratterizzazione Multiscala per le Scienze dei Materiali e della Vita" dell'Università di Modena e Reggio Emilia. (dall'a.a. 2005-2006 fino all'a.a. 2012-2013).

- A partire dall'a.a. 2013-2014 (ad oggi) è membro della Scuola di Dottorato di "Ingegneria Industriale e del Territorio" dell'Università di Modena e Reggio Emilia.

Significativi riconoscimenti per l'attività scientifica, incluse l'affiliazione ad accademie di riconosciuto prestigio nel settore e la presidenza di società scientifiche di riconosciuto prestigio:

-2009 Best Paper Award, TSS (Thermal Spray Society) di ASM International, International thermal Spray Conference 2009

-6 invited talks in conferenze internazionali

-da gennaio 2018 Valeria Cannillo è entrata a far parte dei Top Italian Scientists

Partecipazione come relatore a convegni di carattere scientifico nazionali o internazionali:

-E' coautore di circa 140 presentazioni a congressi. Ha svolto il ruolo di relatore in molti congressi nazionali e internazionali. Ha fatto 6 invited talk. A giugno sarà Keynote speaker (26th AMC, Stoccolma) su invito.

Direzione o partecipazione a gruppi di ricerca, nazionali o internazionali, legati a università ovvero a qualificate istituzioni pubbliche o private:

-Ha partecipato alle attività di diversi gruppi di ricerca.

-Ha collaborato con diversi gruppi di ricerca stranieri (anche promuovendo progetti di ricerca per lo scambio di ricercatori). In particolare ha promosso progetti finalizzati alla collaborazione internazionale.

-Attualmente coordina un gruppo di ricerca che lavora sui biomateriali.

Responsabilità scientifica generale o di unità per progetti di ricerca internazionali e nazionali

-Progetto di internazionalizzazione dal titolo "Produzione, caratterizzazione e modellazione microstrutturale di rivestimenti superficiali innovativi", finanziato dalla Fondazione Cassa di Risparmio di Modena (Coordinatore Scientifico prof. T. Manfredini, responsabile del progetto incaricato di tenere i contatti con la fondazione Prof. V. Cannillo), anni 2008-2010.

-*"Progettazione e modellazione multiscala di materiali micro e nano strutturati"* Fondo per la Ricerca di Ateneo (FAR), Responsabile scientifico Prof. V. Cannillo

-Progetto Vigoni "Advanced thermally sprayed coatings for biomedical applications", anni 2012-2013, per la collaborazione con l'Institute for Manufacturing Technologies of Ceramic Components and Composites dell'University of Stuttgart, Germania. Responsabile scientifico (italiano) Prof. V.

Cannillo.

- Bando Vinci 2011, Contributi di mobilità per tesi di Dottorato in cotutela.
- Programma di finanziamento di azioni di mobilità (Università di Modena e Reggio Emilia) per la collaborazione con l' Institute of Biomaterials University of Erlangen-Nuremberg, Germany. Responsabile scientifico Prof. V. Cannillo, (anni 2012-2013).
- Vincitrice del FFABR (Fondo per il finanziamento delle attività base di ricerca), 2017.
- Bando mobilità giovani ricercatori, 2018, per la dottoranda Rachele Sergi.

Incarichi di insegnamento o di ricerca (fellowship) presso qualificati atenei e istituti di ricerca esteri o sovranazionali:

- Visiting scientist presso il Department of Materials Science and Engineering del Massachusetts Institute of Technology (MIT), USA, (Prof. W.C. Carter), 1999.
- Short-Term Mobility del Consiglio Nazionale delle Ricerche, presso il Department of Materials Science and Engineering del Massachusetts Institute of Technology (MIT), nell'agosto-settembre 2000.

Altri titoli che contribuiscano a una migliore definizione del profilo scientifico:

- Brevetto nel settore dei biomateriali depositato in data 15/02/19.
- E' stata relatrice di decine di tesi di Laurea e tutor/cotutor di tesi di Dottorato e responsabile della ricerca di diversi assegnisti.

data

06/05/19

firma

