

# CURRICULUM VITAE

**Domingo Alberto TARZIA**  
**September 2021**

## I. PERSONAL DATA AND ADDRESS

CONICET and Depto. Matemática,  
FCE, Universidad Austral,  
Paraguay 1950, S2000FZF Rosario, ARGENTINA.  
Tel.: (+ 54 - 341) 522 - 3093;  
E-mail: [DTarzia@austral.edu.ar](mailto:DTarzia@austral.edu.ar) ; [domingotarzia@yahoo.com.ar](mailto:domingotarzia@yahoo.com.ar)  
Argentine Passport # 08444474M valid to 18 September 2021  
Italian Passport # YA9096069 valid to 2 March 2026

### Position:

- **Retired Superior Researcher at CONICET** (Argentina) from 1 May 2017; Beginning 5 November 1983.
- **Professor on Applied Mathematics at Universidad Austral** (Rosario, Argentina) from 1 February 1991; Beginning 10 August 1970.
- **Vicepresident for Research at Universidad Austral** (Buenos Aires - Pilar – Rosario , Argentina) from January 2018 and continue.

Web page at Austral University: <https://austral.edu.ar/investigadores/tarzia-domingo-alberto/>

Web page at CONICET:

[http://www.conicet.gov.ar/new\\_scp/detalle.php?id=22798&keywords=Domingo+alberto+tarzia&datos\\_academicos=yes](http://www.conicet.gov.ar/new_scp/detalle.php?id=22798&keywords=Domingo+alberto+tarzia&datos_academicos=yes)

at CONICET Digital: <https://ri.conicet.gov.ar/author/6182>

### Areas of interest are:

**Primary:** Partial differential equations (elliptic and parabolic), Free and moving boundary problems, Phase-change processes, Elliptic and parabolic variational inequalities, Optimal control theory by PDE, Corporate finance (financial break-even point).

**Secondary:** Numerical analysis, Optimization, Derivatives in Finance, Elliptic hemivariational inequalities.

### Languages:

- Spanish: native
- French: very good, written and spoken (4 years of residence in France)
- Italian: very good, written and spoken (2 years of residence in Italy)
- English: good, written and spoken

### Professional Associations:

- AMCA: Argentinean Society of Computational Mechanics (Argentina);
- AMS: American Mathematical Society (USA);
- AR-SIAM: Argentinean Section of SIAM (Argentina-USA). Vice-Chair from January 2007 to May 2014;
- ASAMACI: Argentinean Society for Industrial, Computational and Applied Mathematics (Argentina). Vice-chair from October 2008 to May 2011; President from May 2011 till May 2017;
- SADAF: Argentinean Society of Teachers in Finance (Argentina);
- SIAM: Society for Industrial and Applied Mathematics (USA);

Domingo A. Tarzia, Curriculum Vitae, September 2021

- UMA: Argentinean Mathematical Society (Argentina).
- Formerly: UMI (Unione Matematica Italiana (Italy)), SBMAC (Sociedade de Matematica Aplicada e Computacional (Brazil)), MAA (Mathematical Association of America (USA)), NCTM (National Council of Teachers of Mathematics (USA)), MA (Mathematical Association (UK)), AFA (Asociación Física Argentina (Argentina)).

## II. ACADEMIC DEGREES

1) **Bachelor in Mathematics** (Licenciado en Matemática), Facultad de Ciencias Exactas e Ingeniería, Universidad Nacional de Rosario, Rosario (Argentina), 1972.

2) **Bachelor in Physics** (Licenciado en Física), Facultad de Ciencias Exactas e Ingeniería, Universidad Nacional de Rosario, Rosario (Argentina), 1977.

3) **Magister in Numerical Analysis (Diplome d'Etudes Approfondies d'Analyse Numérique)**, Laboratoire Jacques-Louis Lions (ex Laboratoire d'Analyse Numérique), Université Pierre-et-Marie-Curie (Univ. Paris VI), Paris (France), 1977.

Advisor: Prof. Roland Glowinski.

4) **Doctorat de 3ème Cycle en Mathématiques Appliquées, Spécialité: Analyse Numérique - Mécanique Théorique des Solides**, Laboratoire de Mécanique Théorique, Université Pierre-et-Marie-Curie (Univ. Paris VI), Paris (France), 1979.

Advisor: Prof. Georges Duvaut.

5) **Habilitation à Diriger des Recherches, Spécialité: Mathématiques**, Laboratoire Jacques-Louis Lions (ex Laboratoire d'Analyse Numérique), Université Pierre-et-Marie-Curie (Univ. Paris VI), Paris (France), 1991.

Advisors: Prof. A. Damlamian - G. Duvaut (Paris, France), Prof. A. Fasano - M. Primicerio (Florence, Italy).

Referees from Univ. Paris VI: G. Bayada (Lyon), P. Bénilan (Beçanson), J. Mossino (Paris).

Jury: G. Bayada, A. Bossavit, A. Damlamian, G. Duvaut (President), M. Frémond, D. Hilhorst, J. Mossino.

6) **Specialist in Finance**, Facultad de Ciencias Económicas y Estadísticas, Universidad Nacional de Rosario, Rosario (Argentina), 2007.

7) **Magister in Finance**, Facultad de Ciencias Económicas y Estadísticas, Universidad Nacional de Rosario, Rosario (Argentina), 2010.

Advisor: Prof. Guillermo López Dumrauf.

## III. AWARD

Award "Alberto González Domínguez" in Mathematics –Year 1996- from Argentine Science National Academy, Buenos Aires, 22 November 1996.

### Advisor:

11 PhD Thesis in Mathematics;

1 PhD Thesis in Physics;

1 PhD Thesis in Chemical Engineering (co-advisor);

6 Master Thesis in Applied Mathematics;

1 Master Thesis in Business Administration;

1 Master Thesis in Finance;

6 Bachelor Thesis in Physics;

8 Bachelor Thesis in Mathematics.

**Personal Mathematics Genealogy Project:** <http://genealogy.math.ndsu.nodak.edu/id.php?id=154850>

**ORCID iD:** <https://orcid.org/0000-0002-2813-0419>

Domingo A. Tarzia, Curriculum Vitae, September 2021

**Google Scholar:** <https://scholar.google.com.ar/citations?user=WMzU7UUAAA&hl=es>

**Research Gate:** [www.researchgate.net/profile/Domingo\\_Tarzia](http://www.researchgate.net/profile/Domingo_Tarzia)

**Scopus ID:** <https://www.scopus.com/authid/detail.uri?authorId=55931080400>

**Social Science Research Network (SSRN):** <http://ssrn.com/author=1334899>

\* Rubén Spies, “Historia de Domingo Tarzia y su rol como fundador de ASAMACI”, Conferencia, VIII Congreso de Matemática Aplicada, Computacional e Industrial, La Plata, 3-7/05/2021 (VIII MACI 2021), video en youtube, 3 mayo 2021.

See: [https://www.youtube.com/watch?v=5eIvRDiJdbg&ab\\_channel=MaciLaPlata](https://www.youtube.com/watch?v=5eIvRDiJdbg&ab_channel=MaciLaPlata)

And complement: <https://www.youtube.com/watch?v=eBegmWrTcSE>

#### IV. BOOKS and BOOKLETS

- 1) D.A. TARZIA, "Introducción a las inecuaciones variacionales elípticas y sus aplicaciones a problemas de frontera libre", CLAMI-CONICET, No. 5, Buenos Aires (1981), (206 pages)
- 2) D.A. TARZIA, "The two-phase Stefan problem and some related conduction problems", Reuniões em Matemática Aplicada e Computacao Científica, Vol. 5, Sociedade Brasileira de Matemática Aplicada e Computacional, Río de Janeiro (1987), (137 pages).
- 3) D.A. TARZIA, "A bibliography on moving-free boundary problems for the heat diffusion equation. The Stefan problem", Firenze (1988) (with 2528 titles on the subject), (103 pages).
- 4) D.A. TARZIA, "Transferencia de calor y materia con cambio de fase", en "Transferencia de Calor y Materia. Aspectos Fundamentales", 1ra Escuela de Postgrado en Transferencia de Calor y Materia ECAMAT'92, J.C. Ferreri (Ed.), CAMAT, Tandil (1992), Capítulo 2, pp. 2.1-2.46 (46 pages)
- 5) D.A. TARZIA, "A bibliography on moving-free boundary problems for the heat diffusion equation. The Stefan and related problems", MAT - Serie A, 2 (2000), 1-297 (with 5869 titles on the subject). Available from:

[http://web.austral.edu.ar/descargas/facultad-cienciasEmpresariales/mat/Tarzia-MAT-SerieA-2\(2000\).pdf](http://web.austral.edu.ar/descargas/facultad-cienciasEmpresariales/mat/Tarzia-MAT-SerieA-2(2000).pdf)

- 6) D.A. TARZIA, "Curso de nivelación de Matemática", McGraw-Hill Interamericana, Santiago de Chile (2000), (381 pages).
- 7) D.A. TARZIA, “Cómo pensar, entender, razonar, demostrar y crear en Matemática”, MAT -Serie B, # 1, Rosario (2000), (76 pages).
- 8) D.A. TARZIA, “Matemática: Operaciones numéricas y geometría del plano”, MAT - Serie B, # 2, Rosario (2003), (80 pages).
- 9) D.A. TARZIA, “Explicit and Approximated Solutions for Heat and Mass Transfer Problems with a Moving Interface”, Chapter 20, In Advanced Topics in Mass Transfer, Mohamed El-Amin (Ed.), Rijeka (Croatia) (2011), pp. 439-484. ISBN: 978-953-307-333-0, INTECH Open Access Publisher (626 pages). Available from:

<http://www.intechopen.com/articles/show/title/explicit-and-approximated-solutions-for-heat-and-mass-transfer-problems-with-a-moving-interface>.

The book containing the chapter is available from:

<http://www.intechopen.com/books/show/title/advanced-topics-in-mass-transfer>

10) J. BOLLATI – M.F. NATALE – J.A. SEMITIEL - D.A. TARZIA, “Approximate solutions to the one-phase Stefan problem with non-linear temperature-dependent thermal conductivity”, Chapter 1 , In Heat Conduction: Methods, Applications and Research, J. Hristov – R. Bennacer (Eds.), Nova Science Publishers, Inc. (2019), pp1-20.

## V. EDITOR OF CONGRESS

- 1) D.A. TARZIA (Ed.), "Seminario sobre el problema de Stefan y sus aplicaciones", CUADERNOS del Instituto de Matemática "Beppo Levi", No. 11 (178 pages) and 12 (196 pages), Rosario (1984). ISSN: 03250690.
- 2) D.A. TARZIA (Ed.), "II Seminario sobre el problema de Stefan y sus aplicaciones", CUADERNOS del Instituto de Matemática "Beppo Levi", No. 13 (60 pages) and 14 (172 pages), Rosario (1987). ISSN: 03250690.
- 3) D.A. TARZIA (Ed.), "III Seminario sobre problemas de frontera libre y sus aplicaciones", Cuadernos del Instituto de Matemática "Beppo Levi", No. 17 (152 pages) and 18 (100 pages), Rosario (1989). ISSN: 03250690.
- 4) D.A. TARZIA (Ed.), "IV Seminario sobre problemas de frontera libre y sus aplicaciones", Cuadernos del Instituto de Matemática "Beppo Levi", No. 23 (129 pages) and 24 (130 pages), Rosario (1993). ISSN: 03250690.
- 5) D.A. TARZIA (Ed.), "V Seminario sobre problemas de frontera libre y sus aplicaciones", Cuadernos del Instituto de Matemática "Beppo Levi", No. 25 (106 pages) and 26 (102 pages), Rosario (1995). ISSN: 03250690.
- 6) D.A. TARZIA (Ed.), "VI Seminario sobre problemas de frontera libre y sus aplicaciones", MAT-Serie A, # 3 (44 pages), # 4 (40 pages), # 5 (44 pages), Rosario (2001). ISSN: 1515-4904. Available from:  
[http://web.austral.edu.ar/descargas/facultad-cienciasEmpresariales/mat/Tarzia\(Ed\)-MAT-SerieA-3\(2001\).pdf](http://web.austral.edu.ar/descargas/facultad-cienciasEmpresariales/mat/Tarzia(Ed)-MAT-SerieA-3(2001).pdf)  
[http://web.austral.edu.ar/descargas/facultad-cienciasEmpresariales/mat/Tarzia\(Ed\)-MAT-SerieA-4\(2001\).pdf](http://web.austral.edu.ar/descargas/facultad-cienciasEmpresariales/mat/Tarzia(Ed)-MAT-SerieA-4(2001).pdf)  
[http://web.austral.edu.ar/descargas/facultad-cienciasEmpresariales/mat/Tarzia\(Ed\)-MAT-SerieA-5\(2001\).pdf](http://web.austral.edu.ar/descargas/facultad-cienciasEmpresariales/mat/Tarzia(Ed)-MAT-SerieA-5(2001).pdf)
- 7) D. A. TARZIA (Ed.), “Primeras Jornadas Sobre Ecuaciones Diferenciales, Optimización y Análisis Numérico”, MAT – Serie A, # 7 (42 pages), # 8 (27 pages), Rosario (2004). ISSN: 1515-4904. Available from::  
[http://web.austral.edu.ar/descargas/facultad-cienciasEmpresariales/mat/Tarzia\(Ed\)-MAT-SerieA-7\(2005\).pdf](http://web.austral.edu.ar/descargas/facultad-cienciasEmpresariales/mat/Tarzia(Ed)-MAT-SerieA-7(2005).pdf)  
[http://web.austral.edu.ar/descargas/facultad-cienciasEmpresariales/mat/Tarzia\(Ed\)-MAT-SerieA-8\(2005\).pdf](http://web.austral.edu.ar/descargas/facultad-cienciasEmpresariales/mat/Tarzia(Ed)-MAT-SerieA-8(2005).pdf)
- 8) D. A. TARZIA – C. V. TURNER (Eds.), “Segundas Jornadas Sobre Ecuaciones Diferenciales, Optimización y Análisis Numérico”, MAT – Serie A, # 10 (22 pages), Rosario (2005). ISSN: 1515-4904. Available from::  
[http://web.austral.edu.ar/descargas/facultad-cienciasEmpresariales/mat/Tarzia-Turner\(Eds\)-MAT-SerieA-10\(2005\).pdf](http://web.austral.edu.ar/descargas/facultad-cienciasEmpresariales/mat/Tarzia-Turner(Eds)-MAT-SerieA-10(2005).pdf)
- 9) M.C. MACIEL - D. A. TARZIA (Eds.), “Terceras Jornadas Sobre Ecuaciones Diferenciales, Optimización y Análisis Numérico”, MAT – Serie A, # 14 (40 pages), Rosario (2007). ISSN: 1515-4904. Available from::  
[http://web.austral.edu.ar/descargas/facultad-cienciasEmpresariales/mat/Maciel-Tarzia\(Eds\)-MAT-SerieA-14\(2007\).pdf](http://web.austral.edu.ar/descargas/facultad-cienciasEmpresariales/mat/Maciel-Tarzia(Eds)-MAT-SerieA-14(2007).pdf)
- 10) D. A. TARZIA – R.H. MASCHERONI (Eds.), “Workshop on Mathematical Modelling of Energy and Transfer Processes, and Applications”, MAT – Serie A, # 15 (53 pages), Rosario (2008). ISSN: 1515-4904. Available from:  
[http://web.austral.edu.ar/descargas/facultad-cienciasEmpresariales/mat/Tarzia\(Ed\)-MAT-SerieA-15\(2008\).pdf](http://web.austral.edu.ar/descargas/facultad-cienciasEmpresariales/mat/Tarzia(Ed)-MAT-SerieA-15(2008).pdf)
- 11) E.M. MANCINELLI - E. A. SANTILLAN MARCUS - D. A. TARZIA (Eds.), II Congreso de Matemática Aplicada, Computacional e Industrial (II MACI 2009), ASAMACI, MACI, Vol. 2 (506 pages), Rosario (2009). Available from:  
<http://asamaci.org.ar/wp-content/uploads/2012/03/MACI-Vol-2-2009.pdf>

- 12) G. ACOSTA – J. ETCHEVERRY – F. REITICH – R. SPIES – D. TARZIA – C. TURNER – A. WILL (Eds.), “TAMI 2010 – Taller de Matemática Industrial”, Cursos y Seminarios de Matemática, Serie B, Fascículo 6 (57 pages), Depto. Matemática, Fac. Cs. Exactas y Nat., UBA, Buenos Aires (2010). Available from:  
<http://cms.dm.uba.ar/depto/public/CyS6.pdf>
- 13) D.A. TARZIA (Ed.), “VII Italian–Latin American Conference on Industrial and Applied Mathematics – Part 1”, MAT – Serie A, # 19 (42 pages), Rosario (2014). Available from:  
[http://www.austral.edu.ar/cienciasempresariales/wp-content/uploads/2015/05/Tarzia\(Ed\)-MAT-SerieA-19\(2014\).pdf](http://www.austral.edu.ar/cienciasempresariales/wp-content/uploads/2015/05/Tarzia(Ed)-MAT-SerieA-19(2014).pdf)
- 14) D.A. TARZIA (Ed.), “VII Italian–Latin American Conference on Industrial and Applied Mathematics – Part 2”, MAT – Serie A, # 20 (38 pages), Rosario (2015). Available from:  
[http://www.austral.edu.ar/cienciasempresariales/wp-content/uploads/2016/04/Tarzia\(Ed\)-MAT-SerieA-202015.pdf](http://www.austral.edu.ar/cienciasempresariales/wp-content/uploads/2016/04/Tarzia(Ed)-MAT-SerieA-202015.pdf)

## VI. RESEARCH PUBLICATIONS (since 1979)

### Research publications (since 1979)

Areas of research [numbers of papers published in scientific journals]:

- Free and moving boundary problems:
  - ✓ 1-dimensional Stefan-like Problem (phase-change and related processes): [5, 6, 7, 9, 12, 13, 14, 15, 16, 17, 18, 21, 22, 26, 29, 33, 35, 37, 38, 41, 44, 46, 47, 49, 50, 54, 55, 57, 59, 60, 61, 62, 66, 69, 71, 73, 75, 76, 79, 80, 82, 83, 84, 87, 89, 90, 92, 94, 97, 100, 101, 102, 103, 105, 106, 108, 109, 114, 115, 118, 125, 126, 128, 129, 130, 133, 135, 138, 139, 140, 141, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 154, 155, 156, 157, 158, 162, 165]
  - ✓ n-dimensional Stefan Problem (phase-change processes): [1, 2, 3, 4, 6, 8, 11, 19, 20, 23, 25, 48]
  - ✓ Freezing of high-water content material: [96, 111]
  - ✓ Fractional Stefan problem: [120, 126, 135, 146, 148, 149, 150, 162]
  - ✓ Diffusion-consumption of oxygen: [13, 99, 112, 123]
  - ✓ Binary-alloy solidification: [51]
  - ✓ Saturated-unsaturated flow: [53]
  - ✓ Heat –diffusion equation with absorption: [24, 28, 72]
  - ✓ Gas-solid systems: [42, 64]
  - ✓ Reaction-diffusion problems: [67]
  - ✓ Obstacle problem: [10, 113, 127, 132, 161]
- Elliptic variational/hemivariational/quasivariational inequalities: [2, 3, 4, 10, 19, 20, 23, 25, 27, 36, 39, 48, 56, 74, 77, 78, 85, 88, 93, 95, 98, 113, 119, 122, 127, 132, 160, 161, 164, 166, 167, 170, 171]
- Differential quasivariational inequalities: [166]
- Parabolic variational inequalities: [1, 8, 11, 91, 107, 116, 159, 169]
- Optimal control problems: [74, 78, 91, 93, 95, 98, 107, 113, 116, 119, 122, 127, 132, 159, 160, 161, 164, 166, 167, 169, 171]
- Optimization: [27, 32, 77, 160, 161, 164, 166, 167, 169, 171]
- Numerical analysis: [39, 45, 48, 56, 77, 81, 90, 96, 109, 119, 121, 127, 160, 162, 165]
- Explicit solution for elliptic problems: [4, 10, 19, 23, 27, 32, 36, 85, 160, 163, 168, 172]
- Explicit solution for parabolic problems: [1, 5, 7, 9, 12, 14, 15, 18, 21, 26, 29, 33, 35, 37, 41, 44, 47, 50, 51, 53, 54, 55, 58, 60, 61, 62, 70, 71, 75, 76, 79, 80, 82, 83, 84, 87, 89, 92, 94, 97, 100, 101, 102, 103, 106, 118, 120, 124, 125, 126, 128, 133, 135, 136, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 152, 154, 155, 157, 162, 165, 169, 172]

- Unknown thermal coefficients: [7, 9, 12, 14, 17, 18, 21, 35, 42, 47, 50, 54, 58, 92, 97, 105, 108, 115, 126, 128, 130, 135, 163, 168]
- Integrals equations: [30, 52, 63, 66, 69, 82, 83, 84, 104, 110, 124, 136, 142, 153]
- Fractional differential equations [120, 126, 135, 146, 148, 149, 150, 151, 162]
- Approximate methods (heat balance, quasi steady-state, etc.): [17, 28, 31, 34, 37, 40, 43, 65, 81, 96, 112, 123, 143, 145, 152, 156, 165]
- Root growth – Nutrient uptake – water uptake (agronomy-soil science): [31, 34, 37, 40, 43, 65, 71, 81, 86, 121, 137]
- Solid-solid interface [165, 168, 172]
- Non-classical heat equations: [30, 52, 63, 69, 82, 84, 101, 104, 110, 117, 124, 136, 142, 153]
- Ordinary differential equations: [134, 139, 142, 145, 152, 154, 158]
- Contact Mechanics: [161, 164, 166, 167, 170, 171]
- Quantitative finance: [131]

### VI.1. Journal Articles:

- 1) D.A. TARZIA, "Sur le problème de Stefan à deux phases", Comptes Rendus de l'Académie des Sciences de Paris, 288 A (1979), 941-944.
- 2) D.A. TARZIA, "Aplicación de métodos variacionales en el caso estacionario del problema de Stefan a dos fases", Mathematicae Notae, 27 (1979-1980), 145-156.
- 3) D.A. TARZIA, "Una familia de problemas que converge hacia el caso estacionario del problema de Stefan a dos fases", Mathematicae Notae, 27 (1979-1980), 157-165.
- 4) D.A. TARZIA, "Sobre el caso estacionario del problema de Stefan a dos fases", Mathematicae Notae, 28 (1980-1981), 73-89.
- 5) D.A. TARZIA, "An inequality for the coefficient  $\sigma$  of the free boundary  $s(t)=2\sigma\sqrt{t}$  of the Neumann solution for the two-phase Stefan problem", Quarterly of Applied Mathematics, 39 (1981-1982), 491-497.
- 6) D.A. TARZIA, "Una revisión sobre problemas de frontera móvil y libre para la ecuación del calor. El problema de Stefan", Mathematicae Notae, 29 (1981-1982), 147-241.
- 7) D.A. TARZIA, "Determination of the unknown coefficients in the Lamé -Clapeyron problem (or one-phase Stefan problem)", Advances in Applied Mathematics, 3 (1982), 74-82.
- 8) D.A. TARZIA, "Etude de l'inéquation variationnelle proposée par Duvaut pour le problème de Stefan à deux phases, I", Bollettino dell'Unione Matematica Italiana, 1B (1982), 865-883.
- 9) M.B. STAMPELLA - D.A. TARZIA, "Determinación de coeficientes desconocidos en el problema de Stefan a dos fases", SIGMA (Revista de Matemáticas Aplicadas), 8 (1982), 83-98.
- 10) G.G. GARGUICHEVICH - M.B. STAMPELLA - D.A. TARZIA, "On the obstacle problem", Mathematicae Notae, 30 (1983), 67-79.
- 11) D.A. TARZIA, "Etude de l'inéquation variationnelle proposée par Duvaut pour le problème de Stefan à deux phases, II", Bollettino dell'Unione Matematica Italiana, 2B (1983), 589-603.
- 12) D.A. TARZIA, "Simultaneous determination of two unknown thermal coefficients through an inverse one-phase Lamé-Clapeyron (Stefan) problem with an overspecified condition on the fixed face", International Journal of Heat and Mass Transfer, 26 (1983), 1151-1158.
- 13) E. COMPARINI - R. RICCI - D.A. TARZIA, "Remarks on a one dimensional Stefan problem related to the diffusion-consumption model", Zeitschrift für Angewandte Mathematik und Mechanik (ZAMM), 64 (1984), 543-550.
- 14) D.A. TARZIA, "A new variant for the simultaneous calculation of some thermal coefficients of a semi-infinite material through a phase-change problem with an over-condition on the fixed face",

- Latin American Journal on Heat and Mass Transfer (now Latin American Applied Research), 8 (1984), 227-235.
- 15) A.B. BANCORA - D.A. TARZIA, "On the Neumann solution for the two-phase Stefan problem including the density jump at the free boundary", Latin American Journal on Heat and Mass Transfer (now Latin American Applied Research), 9 (1985), 215-222.
  - 16) E. COMPARINI - D.A. TARZIA, "A Stefan problem for the heat equation subject to an integral condition", Rendiconti Seminario Matematico dell'Università di Padova, 73 (1985), 119-136.  
See: [http://archive.numdam.org/article/RSMUP\\_1985\\_73\\_119\\_0.pdf](http://archive.numdam.org/article/RSMUP_1985_73_119_0.pdf)
  - 17) G.G. GARGUICHEVICH - M.C. SANZIEL - D.A. TARZIA, "Comparison of approximate methods for the determination of thermal coefficients through a phase-change problems", International Communications in Heat and Mass Transfer, 12 (1985), 451-464.
  - 18) D.A. TARZIA, "Determination of unknown thermal coefficients of a semi-infinite material for the one-phase Lamé-Clapeyron (Stefan) problem through the Solomon-Wilson-Alexiades mushy zone model", International Communications in Heat and Mass Transfer, 14 (1987), 219-228.
  - 19) D.A. TARZIA, "An inequality for the constant heat flux to obtain a steady-state two-phase Stefan problem", Engineering Analysis with Boundary Elements (formerly Engineering Analysis), 5 (1988), 177-181.
  - 20) D.A. TARZIA, "Mixed elliptic problems with solutions of non-constant sign", Revista de la Unión Matemática Argentina, 34 (1988), 31-55.  
See: <http://inmabb.criba.edu.ar/revuma/pdf/v34/p031-055.pdf>
  - 21) M.B. STAMPELLA - D.A. TARZIA, "Determination of one or two unknown thermal coefficients of a semi-infinite material through a two-phase Stefan problem", International Journal of Engineering Science, 27 (1989), 1407-1419.
  - 22) D.A. TARZIA - L.T. VILLA, "On the free boundary problem in the Wen-Langmuir shrinking core model for noncatalytic gas-solid reactions", Meccanica, 24 (1989), 86-92.
  - 23) E.D. TABACMAN - D.A. TARZIA, "Sufficient and/or necessary conditions for the heat transfer coefficient on  $\Gamma_1$  and the heat flux on  $\Gamma_2$  to obtain a steady-state two-phase Stefan problem", Journal of Differential Equations, 77 (1989), 16-37.
  - 24) R. RICCI - D.A. TARZIA, "Asymptotic behavior of the solution of the dead-core problems", Nonlinear Analysis, Theory, Methods and Applications, 13 (1989), 405-411.
  - 25) J.E. BOUILLET - M. SHILLOR - D.A. TARZIA, "Critical outflow for a steady-state Stefan problem", Applicable Analysis, 32 (1989), 31-51.
  - 26) M.C. SANZIEL - D.A. TARZIA, "Necessary and sufficient condition to obtain n phases in a one-dimensional medium with a flux condition on the fixed face", Mathematicae Notae, 33 (1989), 25-32.
  - 27) R.L.V. GONZALEZ - D.A. TARZIA, "Optimization of heat flux in a domain with temperature constraints", Journal on Optimization, Theory and Applications, 65 (1990), 245-256.
  - 28) D.A. TARZIA, "A variant of the heat balance integral method and a new proof of the exponentially fast asymptotic behavior of the solutions in heat conduction problems with absorption", International Journal of Engineering Science, 28 (1990), 1253-1259.
  - 29) D.A. TARZIA, "Neumann-like solution for the two-phase Stefan problem with a simple mushy zone model", Computational and Applied Mathematics (ex Matemática Aplicada e Computacional), 9 (1990), 201-211.
  - 30) D.A. TARZIA - L.T. VILLA, "Remarks on some nonlinear initial boundary value problems in heat conduction", Revista de la Unión Matemática Argentina, 35 (1990), 265-275.  
See: <http://inmabb.criba.edu.ar/revuma/pdf/v35/p265-275.pdf>
  - 31) J.C. REGINATO - D.A. TARZIA - A. CANTERO, "On the free boundary problem for the Michaelis-Menten absorption model for root growth", Soil Science, 150 (1990), 722-729.
  - 32) R.L.V. GONZALEZ - D.A. TARZIA, "On some thermic flux optimization problems in domain with Fourier boundary condition and state restrictions", Mathematicae Notae, 34 (1990), 21-32.

- 33) D.A. TARZIA - L.T. VILLA, "Mathematical considerations on the heat transfer with phase change with negligible latent heat", *Latin American Applied Research*, 21 (1991), 1-6.
- 34) J.C. REGINATO - D.A. TARZIA - A. CANTERO, "On the free boundary problem for the Michaelis-Menten absorption model for root growth II. High concentrations", *Soil Science*, 152 No. 2 (1991), 63-71.
- 35) D.A. TARZIA, "Sobre una nueva variante para el cálculo simultáneo de coeficientes térmicos de un material semi-infinito a través de un problema directo o inverso de Stefan a dos fases", *Mathematicae Notae*, 35 (1991), 25-41.
- 36) G.G. GARGUICHEVICH - D.A. TARZIA, "The steady-state two-phase Stefan problem with an internal energy and some related problems", *Atti Seminario Matematico Fisico dell'Università Modena*, 39 (1991), 615-634.
- 37) D.A. TARZIA, "Six free boundary problems for the heat-diffusion equation", *Revista de la Unión Matemática Argentina*, 37 (1991), 294-309.  
See: <http://inmabb.criba.edu.ar/revuma/pdf/v37n3y4/p294-309.pdf>
- 38) D.A. TARZIA - C.V. TURNER, "A note on the existence of a waiting time for a two-phase Stefan problem", *Quarterly of Applied Mathematics*, 50 (1992), 1-10.
- 39) D.A. TARZIA, "Análisis numérico de una ecuación de tipo Stokes", *Revista Internacional de Métodos Numéricos para Cálculo y Diseño en Ingeniería*, 8 (1992), 385-393.
- 40) J.C. REGINATO - D.A. TARZIA, "The balance integral method applied to root growth of crops", *International Journal of Engineering Science*, 31 (1993), 61-70.
- 41) J.L. MENALDI - D.A. TARZIA, "Generalized Lamé-Clapeyron solution for a one-phase source Stefan problem", *Computational and Applied Mathematics*, 12 (1993), 123-142.
- 42) H.A. DESTEFANIS - E. ERDMANN - D.A. TARZIA - L.T. VILLA, "A free boundary model applied to the estimation of the diffusion coefficient in a gas-solid system", *International Communications in Heat and Mass Transfer*, 20 (1993), 103-110.
- 43) J.C. REGINATO - D.A. TARZIA - M.A. DZIOBA, "A model for root growth with root competition", *Plant and Soil*, 157 (1993), 185-196.
- 44) A. PETROVA - D.A. TARZIA - C.V. TURNER, "The one-phase supercooled Stefan problem with temperature boundary condition", *Advances in Mathematical Sciences and Applications*, 4 (1994), 35-50.
- 45) J.C. ARDERIUS - M. LARA - D.A. TARZIA, "Experimental-numerical determination of thermal coefficient through a phase-change process", *International Communications in Heat and Mass Transfer*, 23 (1996), 745-754.
- 46) D.A. TARZIA - C.V. TURNER, "The asymptotic behavior in the one-phase Stefan problem with a convective boundary condition", *Applied Mathematics Letters*, 9 No. 3 (1996), 21-24.
- 47) A.M. GONZALEZ - D.A. TARZIA, "Determination of unknown coefficients of a semi-infinite material through a simple mushy zone model for the two-phase Stefan problem", *International Journal of Engineering Science*, 34 (1996), 799-817.
- 48) D.A. TARZIA, "Numerical analysis for the heat flux in a mixed elliptic problem to obtain a discrete steady-state two-phase Stefan problem", *SIAM Journal on Numerical Analysis*, 33 (1996), 1257-1265.
- 49) D.A. TARZIA - C.V. TURNER, "The one-phase supercooled Stefan problem with a convective boundary condition", *Quarterly of Applied Mathematics*, 55 (1997), 41-50.
- 50) A.C. BRIOZZO - M.F. NATALE - D.A. TARZIA, "Determination of unknown thermal coefficients through a free boundary problem for a nonlinear heat conduction equation with a convective term", *International Communications in Heat and Mass Transfer*, 24 (1997), 857-868.
- 51) S.C. GUPTA - M.C. SANZIEL - D.A. TARZIA, "A similarity solution for the binary alloy solidification problem with a simple mushy zone model", *Anales de la Academia Nacional de Ciencias Exactas, Físicas y Naturales de Buenos Aires*, 49 (1997), 75-82.



- 52) D.A. TARZIA - L.T. VILLA, "Some nonlinear heat conduction problems for a semi-infinite strip with a non-uniform heat source", *Revista de la Unión Matemática Argentina*, 41 No.1 (1998), 99-114. See: <http://inmabb.criba.edu.ar/revuma/pdf/v41n1/v41n1a11.pdf>
- 53) A.C. BRIOZZO - D.A. TARZIA, "The explicit solution of a free boundary problem for a nonlinear absorption model of mixed saturated-unsaturated flow", *Advances in Water Resources*, 21 (1998), 713-721.
- 54) D.A. TARZIA, "The determination of unknown thermal coefficients through phase change process with temperature-dependent thermal conductivity", *International Communications in Heat and Mass Transfer*, 25 (1998), 139-147.
- 55) A. FASANO - M. PRIMICERIO - D.A. TARZIA, "Similarity solutions in Stefan-like problems", *Mathematical Models and Methods in Applied Sciences*, 9 (1999), 1-10.
- 56) D.A. TARZIA, "Numerical analysis of a mixed elliptic problem with flux and convective boundary conditions to obtain a discrete solution of non-constant sign", *Numerical Methods for Partial Differential Equations*, 15 (1999), 355-369.
- 57) P. MANNUCCI - D.A. TARZIA, "The one-phase supercooled Stefan problem in spherical symmetry", *Demonstratio Mathematica*, 32 (1999), 67-76. See: <https://www.degruyter.com/downloadpdf/j/dema.1999.32.issue-1/dema-1999-0108/dema-1999-0108.pdf>
- 58) A.C. BRIOZZO - M.F. NATALE - D.A. TARZIA, "Determination of unknown thermal coefficients for Storm's type materials through a phase-change process", *International Journal of Non-Linear Mechanics*, 34 (1999), 329-340.
- 59) D.A. TARZIA - C.V. TURNER, "Estimation of the occurrence of the phase-change process in spherical coordinates", *International Communications in Heat and Mass Transfer*, 26 (1999), 559-568.
- 60) E.A. SANTILLAN MARCUS – D.A. TARZIA, "Soluciones explícitas para el problema de desublimación en un semi-espacio húmedo poroso con una condición de flujo de calor", *Revista Información Tecnológica del Chile*, 11 No. 4 (2000), 19-24.
- 61) M.F. NATALE - D.A. TARZIA, "Explicit solutions to the two-phase Stefan problem for Storm's type materials", *Journal of Physics A: Mathematical and General*, 33 (2000), 395-404.
- 62) E.A. SANTILLAN MARCUS - D.A. TARZIA, "Explicit solution for freezing of humid porous half-space with heat flux condition", *International Journal of Engineering Science*, 38 (2000), 1651-1665.
- 63) L.R. BERRONE - D.A. TARZIA - L.T. VILLA, "Asymptotic behavior of a non-classical heat conduction problem for a semi-infinite material", *Mathematical Methods in the Applied Sciences*, 23 (2000), 1161-1177.
- 64) E. BOBULA - D.A. TARZIA - K. TWARDOWSKA - L.T. VILLA, "On a free-moving boundary diffusion problem in a catalytic gas-solid system with catalyst decay", *SIAM Journal on Applied Mathematics*, 60 (2000), 1667-1685.
- 65) J.C. REGINATO - M.C. PALUMBO - I.S. MORENO - I.Ch. BERNARDO - D.A. TARZIA, "Modeling nutrient uptake using a moving boundary approach. Comparison with the Barber-Cushman model", *Soil Science Society of America Journal*, 64 (2000), 1363-1367.
- 66) J.E. BOUILLET - D.A. TARZIA, "An integral equation for a Stefan problem with many phases and a singular source", *Revista de la Unión Matemática Argentina*, Vol. 41 No. 4 (2000), 1-8. See: <http://inmabb.criba.edu.ar/revuma/pdf/v41n4/v41n4a01.pdf>
- 67) H. GHIDOUCHE – P. SOUPLET – D.A. TARZIA, "Decay of global solution, stability and blowup for a reaction-diffusion problem with free boundary", *Proceedings of the American Mathematical Society*, 129 (2001), 781-792.
- 68) A. LOMBARDI - D.A. TARZIA, "Similarity solutions for thawing processes with a heat flux on the fixed boundary", *Meccanica*, 36 (2001), 251-264.

- 69) D.A. TARZIA, "A Stefan problem for a non-classical heat equation", MAT - Serie A, 3 (2001), 21-26.
- 70) J.C. REGINATO - D.A. TARZIA, "An alternative formula to compute the nutrient uptake for roots", Communications in Soil Science and Plant Analysis, 33 No. 5 & 6 (2002), 821-830.
- 71) A.C. BRIOZZO - D.A. TARZIA, "An explicit solution for the instantaneous two-phase Stefan problem with nonlinear thermal coefficients", IMA Journal of Applied Mathematics, 67 (2002), 249-261.
- 72) R. RICCI – D.A. TARZIA, “A spatially inhomogeneous diffusion problem with strong absorption”, Bollettino dell’Unione Matematica Italiana, (8) 6-B (2003), 749-761.
- 73) D.A. TARZIA - C.V. TURNER, "The asymptotic behavior for the two-phase Stefan problem with convective boundary condition", Communications in Applied Analysis, 7 No.3 (2003), 313-334.
- 74) C.M. GARIBOLDI – D.A. TARZIA, “Convergence of distributed optimal controls on the internal energy in mixed elliptic problems when the heat transfer coefficient goes to infinity”, Applied Mathematics and Optimization, 47 (2003), 213-230.
- 75) M.F. NATALE – D.A. TARZIA, “Explicit solutions to the one-phase Stefan problem with temperature-dependent thermal conductivity and a convective term”, International Journal of Engineering Science, 41 (2003), 1685-1698.
- 76) E.A. SANTILLAN MARCUS – D.A. TARZIA, “Exact solutions for drying with coupled phase change in a porous medium with a heat flux condition on the surface”, Computational and Applied Mathematics, 22 (2003), 293-311.
- 77) M.C. SANZIEL – D.A. TARZIA, “Optimization of the heat flux in a mixed elliptic problem with temperature constraints”, MAT – Serie A, 7 (2004), 25-30.  
See: [http://web.austral.edu.ar/descargas/facultad-cienciasEmpresariales/mat/Sanziel-Tarzia-MAT-SerieA-7\(2004\)25-30.pdf](http://web.austral.edu.ar/descargas/facultad-cienciasEmpresariales/mat/Sanziel-Tarzia-MAT-SerieA-7(2004)25-30.pdf)
- 78) C.M. GARIBOLDI – D.A. TARZIA, “A new proof of the convergence of the distributed optimal controls on the internal energy in mixed elliptic problems”, MAT – Serie A, 7 (2004), 31-42.  
See: [http://web.austral.edu.ar/descargas/facultad-cienciasEmpresariales/mat/Gariboldi-Tarzia-MAT-SerieA-7\(2004\)31-42.pdf](http://web.austral.edu.ar/descargas/facultad-cienciasEmpresariales/mat/Gariboldi-Tarzia-MAT-SerieA-7(2004)31-42.pdf)
- 79) A.C. BRIOZZO – M.F. NATALE – D.A. TARZIA, “An explicit solution for a two-phase Stefan problem with a similarity exponential heat sources”, MAT – Serie A, 8 (2004), 11-19.  
See: [http://web.austral.edu.ar/descargas/facultad-cienciasEmpresariales/mat/Briozzo-Natale-Tarzia-MAT-SerieA-8\(2004\)11-19.pdf](http://web.austral.edu.ar/descargas/facultad-cienciasEmpresariales/mat/Briozzo-Natale-Tarzia-MAT-SerieA-8(2004)11-19.pdf)
- 80) D. A. TARZIA, “An explicit solution for a two-phase unidimensional Stefan problem with a convective boundary condition at the fixed face”, MAT – Serie A, 8 (2004), 21-27.  
See: [http://web.austral.edu.ar/descargas/facultad-cienciasEmpresariales/mat/Tarzia-MAT-SerieA-8\(2004\)21-27.pdf](http://web.austral.edu.ar/descargas/facultad-cienciasEmpresariales/mat/Tarzia-MAT-SerieA-8(2004)21-27.pdf)
- 81) M.A. DZIOBA - J.C. REGINATO - D.A. TARZIA, “Finite differences and balance Integral methods applied to nutrient uptake by roots of crops”, International Journal for Computational Methods in Engineering Science and Mechanics, 7 (2006), 13-19.
- 82) A.C. BRIOZZO - D.A. TARZIA, “Existence and uniqueness of a one-phase Stefan problem for a non-classical heat equation with temperature boundary condition at the fixed face”, Electronic Journal of Differential Equations, 2006 (2006) No. 21, pp. 1-16.  
See: <https://ejde.math.txstate.edu/Volumes/2006/21/briozzo.pdf>
- 83) M.F. NATALE – D.A. TARZIA, “Explicit solutions for a one-phase Stefan problem with temperature-dependent thermal conductivity”, Bollettino dell’Unione Matematica Italiana, (8) 9B (2006), 79-99.
- 84) A.C. BRIOZZO - D.A. TARZIA, "A one-phase Stefan problem for a non-classical heat equation with a heat flux condition on the fixed face", Applied Mathematics and Computation, 182 (2006), 809-819.

- 85) G.G. GARGUICHEVICH - D.A. TARZIA, "Sufficient conditions to obtain a steady-state Stefan problem with internal energy and Dirichlet and Robin boundary conditions", *Mathematicae Notae*, 44 (2006), 53-63.
- 86) J.C. REGINATO – D.A. TARZIA, "An alternative method to compute Michaelis-Menten parameters from nutrient uptake data", *MAT – Serie A*, 14 (2007), 35-40
- 87) A. C. BRIOZZO - M. F. NATALE - D. A. TARZIA, "Explicit solutions for a two-phase unidimensional Lamé-Clapeyron-Stefan problem with source terms in both phases", *Journal of Mathematical Analysis and Applications*, 329 (2007), 145-162.
- 88) M. BOUKROUCHE – D.A. TARZIA, "On a convex combination of solutions of elliptic variational inequalities", *Electronic Journal of Differential Equations*, 2007 No. 31 (2007), 1-10.  
See: <https://ejde.math.txstate.edu/Volumes/2007/31/boukrouche.pdf>
- 89) A. C. BRIOZZO - M. F. NATALE - D. A. TARZIA, "Existence of an exact solution for a one-phase Stefan problem with nonlinear thermal coefficients from Tirskaa's method", *Nonlinear Analysis*, 67 (2007), 1989-1998.
- 90) M.C. OLGUIN – M.A. MEDINA – M.C. SANZIEL – D.A. TARZIA, "Behavior of the solution of a Stefan problem by changing thermal coefficients of the substance", *Applied Mathematics and Computation*, 190 (2007), 765-780.
- 91) J.L. MENALDI – D.A. TARZIA, "A distributed parabolic control with mixed boundary conditions", *Asymptotics Analysis*, 52 (2007), 227-241.
- 92) E.A. SANTILLAN MARCUS – D.A. TARZIA, "Determination of one unknown thermal coefficient of a semi-infinite porous material through a desublimation problem with coupled heat and moisture flows", *JP Journal of Heat and Mass Transfer*, 1 No. 3 (2007), 251-270.
- 93) C.M. GARIBOLDI – D.A. TARZIA, "Convergence of distributed optimal controls in mixed elliptic problems by the penalization method", *Mathematicae Notae*, 45 (2007-2008), 1-19.
- 94) D.A. TARZIA, "Exact solution for a Stefan problem with convective boundary condition and density jump", *PAMM – Proceedings on Applied Mathematics and Mechanics*, 7 (2007), pp 1040307-1040308.
- 95) C.M. GARIBOLDI – D.A. TARZIA, "Convergence of boundary optimal controls in mixed elliptic problems", *PAMM – Proceedings on Applied Mathematics and Mechanics*, 7 (2007), pp 1060403-1060404.
- 96) M.C. OLGUIN – V.O. SALVADORI – R.H. MASCHERONI – D.A. TARZIA, "An analytical solution for the coupled heat and mass transfer during the freezing of high-water content materials", *International Journal of Heat and Mass Transfer*, 51 (2008), 4379-4391.
- 97) E.A. SANTILLAN MARCUS – M.F. NATALE - D.A. TARZIA, "Simultaneous determination of two unknown thermal coefficients of a semi-infinite porous material through a desublimation moving boundary problem with coupled heat and moisture flows", *JP Journal of Heat and Mass Transfer*, 2 (2008), 73-116.
- 98) C.M. GARIBOLDI – D.A. TARZIA, "Convergence of boundary optimal control problems with restrictions in mixed elliptic Stefan-like problems", *Advances in Differential Equations and Control Processes*, 1 (2008), 113-132.
- 99) A.M. GONZALEZ – J.C. REGINATO – D.A. TARZIA, "A free-boundary model for anaerobiosis in saturated soil aggregates", *Soil Science*, 173 (2008), 758-767.
- 100) M.F. NATALE – D.A. TARZIA, "The classical one-phase Stefan problem with temperature-dependent thermal conductivity and a convective term", *MAT – Serie A*, No. 15 (2008), 1-16.
- 101) A. C. BRIOZZO - D. A. TARZIA, "Exact solutions for nonclassical Stefan problems", *International Journal of Differential Equations*, Vol. 2010, Article ID 868059 (2010), pp. 1-19.  
See: <http://downloads.hindawi.com/journals/ijde/2010/868059.pdf>

- 102) M.F. NATALE - E.A. SANTILLAN MARCUS - D.A. TARZIA, "Explicit solutions for one dimensional two-phase free boundary problems with either shrinkage or expansion", *Nonlinear Analysis Series B: Real World Applications*, 11 (2010), 1946-1952.
- 103) A. C. BRIOZZO - M. F. NATALE - D. A. TARZIA, "The Stefan problem with temperature-dependent thermal conductivity and a convective term with a convective condition at the fixed face", *Communication on Pure and Applied Analysis*, 9 (2010), 1209-1220.
- 104) A. C. BRIOZZO - D. A. TARZIA, "A Stefan problem for a non-classical heat equation with a convective condition", *Applied Mathematics and Computation*, 217 (2010), 4051-4060.
- 105) N.N. SALVA – D.A. TARZIA, "A sensitivity analysis for the determination of unknown coefficients through a phase-change process with temperature-dependent thermal conductivity", *International Communications in Heat and Mass Transfer*, 38 (2011), 418-424.
- 106) N.N. SALVA – D.A. TARZIA, "Explicit solution for a Stefan problem with variable latent heat and constant heat flux boundary conditions", *Journal of Mathematical Analysis and Applications*, 379 (2011), 240-244.
- 107) M. BOUKROUCHE – D.A. TARZIA, "Existence, Uniqueness, and Convergence of optimal control problems associated with Parabolic variational inequalities of the second kind", *Nonlinear Analysis, Real World and Applications*, 12 (2011), 2211-2224.
- 108) N.N. SALVA – D.A. TARZIA, "Simultaneous determination of unknown coefficients through a phase-change process with temperature-dependent thermal conductivity", *JP Journal of Heat and Mass Transfer*, 5 (2011), 11-39.
- 109) M.C. OLGUIN – M.C. SANZIEL – D.A. TARZIA, "Behavior of the solution of the two-phase Stefan problem with regard to the changing of thermal coefficients of the substance", *LatinAmerican Applied Research*, 41 (2011), 263-271.
- 110) N.N. SALVA – D.A. TARZIA – L.T. VILLA, "An initial-boundary value problem for the one-dimensional non-classical heat equation in a slab", *Boundary Value Problems*, Vol. 2011 No. 4 (2011), 1-17.  
See: <https://boundaryvalueproblems.springeropen.com/track/pdf/10.1186/1687-2770-2011-4>
- 111) R. GIANNI – D.A. TARZIA, "Existence and uniqueness of a classical solution for the coupled heat and mass transfer during the freezing of high-water content materials", *Mathematical Methods in the Applied Sciences*, 34 (2011), 2136-2147.
- 112) A.M. GONZALEZ – J.C. REGINATO – D.A. TARZIA, "A comment on Ahmed's paper on oxygen diffusion in a sphere", *International Journal of Numerical Methods for Heat and Fluid Flow*, 21 No 4 (2011), 459-460.
- 113) M. BOUKROUCHE – D.A. TARZIA, "Convergence of distributed optimal control problems governed by elliptic variational inequalities", *Computational Optimization and Applications*, 53 (2012), 113-132.
- 114) A. C. BRIOZZO - D. A. TARZIA, "Convergence of the solution of the one-phase Stefan problem when the heat transfer coefficient goes to zero", *Journal of Mathematical Analysis and Applications*, 389 (2012), 138-146.
- 115) D.A. TARZIA, "Determinación de un coeficiente térmico desconocido a través de una sobre-condición convectiva en el borde fijo", *Avances en Energías Renovables y Medio Ambiente*, 16 (2012), 03.105 – 03.109.
- 116) M. BOUKROUCHE – D.A. TARZIA, "Convergence of optimal control problems governed by second order parabolic variational inequalities", *Journal of Control Theory and Applications*, 11 No. 3 (2013), 422-427.
- 117) M. BOUKROUCHE – D.A. TARZIA, "Global solution to a non-classical heat problem in the space  $\mathbf{R}^+ \times \mathbf{R}^{n-1}$ ", *Quarterly of Applied Mathematics*, 72 (2014), 347-361.

- 118) A.N. CERETANI – D.A. TARZIA, “Similarity solutions for thawing processes with a convective boundary condition”, *Rendiconti dell’Istituto di Matematica dell’Università di Trieste*, 46 (2014), 137-155.  
See: <https://rendiconti.dmi.units.it/volumi/46/007.pdf>
- 119) D.A. TARZIA, “A commutative diagram among discrete and continuous Neumann boundary optimal control problems”, *Advances in Differential Equations and Control Processes*, 14 (2014), 23-54.
- 120) S.D. ROSCANI - D.A. TARZIA, “A generalized Neumann solution for the two-phase fractional Lamé-Clapeyron-Stefan problem”, *Advances in Mathematical Sciences and Applications*, 24 No. 2 (2014), 237-249.
- 121) J. L. BLENGINO ALBRIEU - J.C. REGINATO - D.A. TARZIA, "Modeling water uptake by a root system growing in a fixed soil volume", *Applied Mathematical Modelling*, 39 (2015), 3434-3447.
- 122) C. GARIBOLDI – D.A. TARZIA, “Existence, uniqueness and convergence of simultaneous distributed-boundary optimal control problems”, *Control and Cybernetics*, 44 (2015), 1-13.
- 123) A.M. GONZALEZ – J.C. REGINATO – D.A. TARZIA, “A free boundary problem for oxygen diffusion in a sphere”, *Journal of Biological Systems*, 23 Supp 01 (2015), S67-S76.
- 124) A.N. CERETANI – D.A. TARZIA – L.T. VILLA, “Explicit solutions for a non-classical heat conduction problem for a semi-infinite strip with a non-uniform heat source”, *Boundary Value Problems*, 2015 No. 156 (2015), 1-26.  
See: <https://boundaryvalueproblems.springeropen.com/track/pdf/10.1186/s13661-015-0416-3>
- 125) D.A. TARZIA, “Explicit solutions for the Solomon-Wilson-Alexiades’s mushy zone model with convective or heat flux boundary conditions”, *Journal of Applied Mathematics*, 2015 Art ID 375930 (2015), 1-9.  
See: <http://downloads.hindawi.com/journals/jam/2015/375930.pdf>
- 126) D.A. TARZIA, "Determination of the one unknown thermal coefficient through the one-phase fractional Lamé-Clapeyron-Stefan problem", *Applied Mathematics*, 6 (2015), 2182-2191.  
See: [https://www.scirp.org/pdf/AM\\_2015113014535370.pdf](https://www.scirp.org/pdf/AM_2015113014535370.pdf)
- 127) M.C. OLGUIN – D.A. TARZIA, “Numerical analysis of distributed optimal control problems governed by elliptic variational inequalities”, *International Journal of Differential Equations*, 2015 Art ID 407930 (2015), 1-7.  
See: <http://downloads.hindawi.com/journals/ijde/2015/407930.pdf>
- 128) A.N. CERETANI – D.A. TARZIA, "Determination of the one unknown thermal coefficient through a mushy zone model with a convective overspecified boundary condition", *Mathematical Problems in Engineering*, Vol. 2015 Art ID 637852 (2015), 1-8.  
See: <http://downloads.hindawi.com/journals/mpe/2015/637852.pdf>
- 129) A.C. BRIOZZO – D.A. TARZIA, “Convergence of the solution of the one-phase Stefan problem with respect two parameters”, *MAT – Serie A*, 20 (2015), 31-38.
- 130) A.N. CERETANI – D.A. TARZIA, "Simultaneous determination of the two unknown thermal coefficients through a mushy zone model with an over-specified convective boundary condition", *JP Journal of Heat and Mass Transfer*, 13 No. 2 (2016), 277-301.
- 131) D.A. TARZIA, “Properties of the financial break-even point in a simple investment project as a function of the discount rate”, *Journal of Economics and Financial Studies*, 4 No. 6 (2016), 31-45.  
See: <https://www.journalofeconomics.org/index.php/site/article/view/226/284>
- 132) M.C. OLGUIN – D.A. TARZIA, “Numerical analysis of a family of optimal distributed control problems governed by an elliptic variational inequalities”, *Advances in Differential Equations and Control Processes*, 17 No. 2 (2016), 159-176.

- 133) D.A. TARZIA, "Relationship between Neumann solutions for two-phase Lamé-Clapeyron-Stefan problems with convective and temperature boundary conditions", *Thermal Science*, 21 No. 1A (2017), 187-197.  
See: <http://www.doiserbia.nb.rs/img/doi/0354-9836/2017/0354-98361500003T.pdf>  
See: <http://thermalscience.vinca.rs/pdfs/papers-2015/TSCI140607003T.pdf>
- 134) A.N. CERETANI – N.N. SALVA – D.A. TARZIA, "Existence and uniqueness of the modified error function", *Applied Mathematics Letters*, 70 (2017), 14-17.
- 135) A.N. CERETANI – D.A. TARZIA, "Determination of two unknown thermal coefficients through an inverse one-phase fractional Stefan problem", *Fractional Calculus and Applied Analysis*, 20 No. 2 (2017), 399-421.
- 136) M. BOUKROUCHE – D.A. TARZIA, "Non-classical heat conduction problem with a non local source", *Boundary Value Problems*, 2017 No. 51 (2017), 1-14.  
See: <https://boundaryvalueproblems.springeropen.com/track/pdf/10.1186/s13661-017-0782-0>
- 137) J.C. REGINATO – J. L. BLENGINO ALBRIEU – D.A. TARZIA, "Analysis and use of cumulative nutrient uptake formulas in plant nutrition and the temporal weight averaged influx", *Journal of Plant Nutrition*, 40 No. 18 (2017), 2511-2520.
- 138) A.N. CERETANI – D.A. TARZIA, "Similarity solution for a two-phase one-dimensional Stefan problem with a convective boundary condition and a mushy zone model", *Computational and Applied Mathematics*, 37 No. 2 (2018), 2201-2217.
- 139) A.N. CERETANI – N.N. SALVA – D.A. TARZIA, "An exact solution to a Stefan problem with variable thermal conductivity and a Robin boundary condition", *Nonlinear Analysis: Real World and Applications*, 40 (2018), 243-259.
- 140) J. BOLLATI – D.A. TARZIA, "One-phase Stefan problem with a latent heat depending on the position of the free boundary and its rate of change", *Electronic Journal of Differential Equations*, 2018 No. 10 (2018), 1-12.  
See: <https://ejde.math.txstate.edu/Volumes/2018/10/bollati.pdf>
- 141) J. BOLLATI – D.A. TARZIA, "Explicit solution for the one-phase Stefan problem with latent heat depending on the position and a convective boundary condition at the fixed face", *Communications in Applied Analysis*, 22 No.2 (2018), 309-332.
- 142) M. BOUKROUCHE – D.A. TARZIA, "A family of singular third order ordinary differential equations with an integral boundary condition", *Boundary Value Problems*, 218 No. 32 (2018), 1-11.  
See: <https://boundaryvalueproblems.springeropen.com/track/pdf/10.1186/s13661-018-0950-x>
- 143) J. BOLLATI – J.A. SEMITIEL – D.A. TARZIA, "Heat balance integral methods applied to the one-phase Stefan problem with a convective boundary condition at the fixed face", *Applied Mathematics and Computation*, 331 (2018), 1-19.
- 144) J. BOLLATI – D.A. TARZIA, "Exact solutions for a two-phase Stefan problem with variable latent heat and a convective boundary conditions at the fixed face", *Zeitschrift für Angewandte Mathematik und Physik – ZAMP*, 69 No. 38 (2018), 1-15.
- 145) A.N. CERETANI – N.N. SALVA – D.A. TARZIA, "Approximation of the modified error function", *Applied Mathematics and Computation*, 337 No. 2 (2018), 607-617.
- 146) S.D. ROSCANI – D.A. TARZIA, "Explicit solution for a two-phase fractional Stefan problem with a heat flux boundary condition at the fixed face", *Computational and Applied Mathematics*, 37 No. 4 (2018), 4757-4771.
- 147) J. BOLLATI – D.A. TARZIA, "One-phase Stefan-like problems with a latent heat depending on the position and velocity of the free boundary, and with Neumann or Robin boundary conditions at the fixed face", *Mathematical Problems in Engineering*, 2018 Article ID 4960391 (2018), 1-11.  
See: <http://downloads.hindawi.com/journals/mpe/2018/4960391.pdf>
- 148) S.D. ROSCANI – J. BOLLATI - D.A. TARZIA, "A new mathematical formulation for a phase change problem with a memory flux", *Chaos, Solitons and Fractals*, 116 (2018), 340-347.

- 149) S.D. ROSCANI – D.A. TARZIA, “An integral relationship for a fractional one-phase Stefan problem”, *Fractional Calculus and Applied Analysis*, 21 No. 4 (2018), 901-918.
- 150) S.D. ROSCANI - D.A. TARZIA, “Two different fractional Stefan problems which are convergent to the same classical Stefan problem”, *Mathematical Methods in the Applied Sciences*, 41 No. 6 (2018), 6842-6850.
- 151) S.D. ROSCANI – L. VENTURATO – D.A. TARZIA, “Global solution to a nonlinear fractional differential equation for the Caputo-Fabrizio Derivative”, *Progress in Fractional Differentiation and Applications*, 5 No. 4 (2019), 1-13.
- 152) J. BOLLATI – M.F. NATALE – J.A. SEMITIEL – D.A. TARZIA, “Existence and uniqueness of solution for two one-phase Stefan problems with variable thermal coefficients”, *Nonlinear Analysis, Real World and Applications*, 51 No. 103001 (2020), 1-11.
- 153) M. BOUKROUCHE – D.A. TARZIA, “A heat conduction problem with sources depending on the average of the heat flux on the boundary”, *Revista de la Unión Matemática Argentina*, 61 No. 1 (2020), 87-101.  
See: <http://inmabb.criba.edu.ar/revuma/pdf/online-first/v61n1a05.pdf>
- 154) A.N. CERETANI – N.N. SALVA – D.A. TARZIA, “Auxiliary functions in the study of Stefan-like problems with variable thermal properties”, *Applied Mathematics Letters*, 104 No. 106204 (2020), 1-6.
- 155) A.C. BRIOZZO – D.A. TARZIA, “On the paper D. Burini – S. De Lillo – G. Fioriti, *Acta Mech.*, 229 No. 10 (2018), 4215-4228”, *Acta Mechanica*, 231 No. 1 (2020), 391-393.
- 156) J. BOLLATI – M.F. NATALE – J.A. SEMITIEL – D.A. TARZIA, “Integral balance methods applied to non-classical Stefan problems”, *Thermal Science*, 24 No. 2B (2020), 1229-1241.  
See: <http://www.doiserbia.nb.rs/img/doi/0354-9836/2020/0354-98361800310B.pdf>
- 157) A.C. BRIOZZO – D.A. TARZIA, “A free boundary problem for a diffusion-convection equation”, *International Journal of Non-Linear Mechanics*, 120 No. 103394 (2020), 1-9.  
See: <https://arxiv.org/pdf/1912.11105.pdf>
- 158) J. BOLLATI – J.A. SEMITIEL – M.F. NATALE – D.A. TARZIA, “Existence and uniqueness of the p-generalized modified error function”, *Electronic Journal of Differential Equations*, 2020 No 35 (2020), 1-11.  
See: <https://ejde.math.txstate.edu/Volumes/2020/35/bollati.pdf>
- 159) D.A. TARZIA – C. BOLLO – C.M. GARIBOLDI, “Convergence of simultaneous distributed-boundary parabolic optimal control problems”, *Evolution Equations and Control Theory* (2020), Accepted, In Press.  
See: <https://arxiv.org/pdf/1912.09157.pdf>
- 160) J. BOLLATI – C. M. GARIBOLDI – D.A. TARZIA, “Explicit solutions for distributed, boundary and distributed-boundary elliptic optimal control problems”, *Journal of Applied Mathematics and Computing*, (2020), Accepted, In Press. Doi 10.1007/s12190-020-01355-2  
See: <https://arxiv.org/pdf/1902.09261.pdf>
- 161) M. SOFONEA – D.A. TARZIA, “Convergence results for optimal control problems governed by elliptic quasivariational inequalities”, *Numerical Functional Analysis and Optimization*, 41 No. 11 (2020), 1326-1351.  
See: <https://arxiv.org/pdf/2005.11788.pdf>
- 162) S.D. ROSCANI – N.D. CARUSO – D.A. TARZIA, “Explicit Solutions to Fractional Stefan-like problems for Caputo and Riemann-Liouville Derivatives”, *Communications in Nonlinear Science and Numerical Simulation*, 90 No. 105361 (2020), 1-17.  
<https://doi.org/10.1016/j.cnsns.2020.105361>  
See: <https://arxiv.org/pdf/2001.10896.pdf>

- 163) G. UMBRICHT – D. RUBIO – D.A. TARZIA, “Estimation Technique for a Contact Point Between Two Materials in a Stationary Heat Transfer Problem”, *Mathematical Modelling of Engineering Problems*, 7 No. 4 (2020), 607-613.  
Doi: 10.18280/mmep.070413  
See: <https://arxiv.org/ftp/arxiv/papers/2104/2104.01212.pdf>  
See: <http://www.iieta.org/pdf-viewer/7786>
- 164) M. SOFONEA – D.A. TARZIA, “On the Tykhonov well-posedness of an antiplane shear problem”, *Mediterranean Journal of Mathematics*, 17 No. 150 (2020), 1-21.  
<https://doi.org/10.1007/s00009-020-01577-5>  
See: <https://arxiv.org/pdf/2008.12730.pdf>
- 165) J. BOLLATI – D.A. TARZIA, “Approximate solutions to one-phase Stefan-like problems with a space-dependent latent heat”, *European Journal of Applied Mathematics*, 32 (2021) 337-369.  
Doi: 10.1017/S0956792520000170.  
See: <https://arxiv.org/pdf/2007.10524.pdf>
- 166) M. SOFONEA – J. BOLLATI - D.A. TARZIA, “Optimal control problems for differential quasivariational inequalities in contact mechanics”, *Journal of Mathematical Analysis and Applications*, 493 No. 124567 (2021), 1-23.  
Doi: [10.1016/j.jmaa.2020.124567](https://doi.org/10.1016/j.jmaa.2020.124567)  
See: <https://arxiv.org/pdf/2009.04455.pdf>
- 167) M. SOFONEA – D.A. TARZIA, “Tykhonov well-posedness of a heat transfer problem with unilateral constraints”, *Applications of Mathematics* (2021), Accepted, In Press, Online First, pp1-31.  
Doi: 10.21136/AM.2021.0172-20  
See: <https://arxiv.org/pdf/2103.07774.pdf>
- 168) G. UMBRICHT – D. RUBIO – D.A. TARZIA, “Estimation of a Thermal Conductivity in a Stationary Heat Transfer Problem with a Solid-Solid Interface”, *International Journal of Heat and Technology*, 39 No. 2 (2021), 337-344.  
DOI: 10.18280/ijht.390202  
See: <https://arxiv.org/ftp/arxiv/papers/2105/2105.12817.pdf>
- 169) C.M. BOLLO – C.M. GARIBOLDI – D.A. TARZIA, “Neumann boundary optimal control problems governed by parabolic variational equalities”, *Control and Cybernetics* (2021), Accepted, In Press.  
See: <https://arxiv.org/pdf/2103.15115.pdf>
- 170) C.M. GARIBOLDI – S. MIGÓRSKI – A. OCHAL – D.A. TARZIA, “Existence, comparison, and convergence results for a class of elliptic hemivariational inequalities”, *Applied Mathematics and Optimization* (2021), Accepted, In Press.  
DOI :10.1007/s00245-021-09800-9.  
Link in Springer Nature: <https://rdcu.be/cn5P6>  
See: <https://arxiv.org/pdf/2106.04702.pdf>
- 171) C.M. GARIBOLDI – D.A. TARZIA, "Distributed optimal control problems for a class of elliptic hemivariational inequalities with a parameter and its asymptotic behavior", *Communications in Nonlinear Science and Numerical Simulation*, 104 No.106027 (2021), 1-9.  
DOI: [10.1016/j.cnsns.2021.106027](https://doi.org/10.1016/j.cnsns.2021.106027)  
See: <https://arxiv.org/pdf/2109.10668.pdf>
- 172) D. RUBIO – D.A. TARZIA - G. UMBRICHT, “Analytical and numerical solution to a heat transfer problem with a solid-solid interface”, *WSEAS Transactions on Mathematics*, 20 No. 42 (2021), 404-414.  
DOI: [10.37394/23206.2021.20.42](https://doi.org/10.37394/23206.2021.20.42)  
See: <https://wseas.com/journals/mathematics/2021/a845106-1445.pdf>



## VI.2. International Conference Proceedings articles:

- 1) D.A. TARZIA, "An analysis of a bibliography on moving and free boundary problems for the heat equation. Some results for the one dimensional Stefan problem using the Lamé-Clapeyron and Neumann solutions", Proc. Int. Colloq. on Free Boundary Problems: Applications and Theory (FBP'84), Vol. III, A. Bossavit - A. Damlamian - M. Frémond (Eds.), Pitman, London, Research Notes in Mathematics, # 120 (1985), 84-102.
- 2) D.A. TARZIA, "On the heat flux in materials with or without phase change", Proc. Int. Colloq. on Free Boundary Problems: Theory and Applications (FBP'87), Vol. II, K.H. Hoffmann - J. Sprekels (Eds.), Longman, Essex, Pitman Research Notes in Mathematics, # 186 (1990), 703-709.
- 3) R. RICCI - D.A. TARZIA, "Asymptotic behavior of the solutions of a class of diffusion-reaction equations", Proc. Int. Colloq. on Free Boundary Problems: Theory and Applications (FBP'87), Vol. II, K.H. Hoffmann - J. Sprekels (Eds.), Longman, Essex, Pitman Research Notes in Mathematics, #186 (1990), 719-721.
- 4) J.C. REGINATO - D.A. TARZIA, "A free boundary model for root growth of crops owing to absorption of one more mobile and immobile ions", in Numerical Methods in Engineering and Applied Sciences, H. Alder - J.C. Heinrich - S. Lavanchy - E. Oñate - B. Suárez (Eds.), CIMNE, Barcelona (1992), 1042-1051.
- 5) D.A. TARZIA, "Approximate and analytic methods to solve some parabolic free boundary problems", in Free Boundary Problems Involving Solids (FBP'90), J.M. Chadam - H. Rasmussen (Eds.), Longman, Essex, Pitman Research Notes in Mathematics, # 281 (1993), 190-196.
- 6) D.A. TARZIA, "On the determination of the unknown coefficients through phase change problems with temperature-dependent thermal conductivity", in Computational Modelling of Free and Moving Boundary Problems II, L.C. Wrobel - C.A. Brebbia (Eds.), Computational Mechanics Publications, Southampton (1993), 311-318.
- 7) D.A. TARZIA, "On the determination of the unknown coefficients through phase change process", in Computational Modelling of Free and Moving Boundary Problems III, L.C. Wrobel - B. Sarler - C.A. Brebbia (Eds.), Computational Mechanics Publications, Southampton (1995), 191-202.
- 8) D.A. TARZIA, "A steady-state two-phase Stefan-Signorini problem with mixed boundary data", in Interdisciplinary Congress Free Boundary Problems: Theory and Applications (FBP'95), M. Niezgodka - P. Strzelecki (Eds.), Addison Wesley Longman Limited, Research Notes in Math. Series, # 363 (1996), 35-42.
- 9) D.A. TARZIA - C.V. TURNER, "The one-phase supercooled Stefan problem", in Interdisciplinary Congress Free Boundary Problems: Theory and Applications (FBP'95), M. Niezgodka - P. Strzelecki (Eds.), Addison Wesley Longman Limited, Research Notes in Math. Series, # 363 (1996). 43-51.
- 10) M.C. OLGUIN - M.C. SANZIEL - D.A. TARZIA, "Numerical results for a one-phase supercooled Stefan problem with constant heat flux on the fixed face", IV World Congress on Computational Mechanics (IV PACAM), Buenos Aires (1998) (10 pages on CD-ROM Proceedings).
- 11) J.C. REGINATO - D.A. TARZIA, "Nutrient uptake through a moving boundary model. Comparative results with the Barber-Cushman model", 16th World Congress of Soil Science, Montpellier (1998), Symposium No. 14, Enregistrement scientifique No. 2602, (7 pages on CD-ROM Proceedings).
- 12) D.A. TARZIA, "Explicit solution to some free boundary problems for the heat equation", International Conference on Free Boundary Problems (FBP'99), N. Kenmochi (Ed.), GAKUTO International Series, Mathematical Sciences and Applications, Free Boundary Problems: Theory and Applications, # 13 (2000), 385-398.
- 13) D.A. TARZIA - C.V. TURNER, "A two phase Stefan problem in a semi-infinite domain with a convective boundary condition at the fixed face", in International Conference on Free Boundary Problems (FBP'99), N. Kenmochi (Ed.), GAKUTO International Series, Mathematical Sciences and Applications, # 14 (2000), 453-459.

- 14) J.C. REGINATO – D.A. TARZIA, “A Study about Nutrient Uptake by Roots. A Moving Boundary Model. Determination of Kinetic Parameters”, in *Plant Nutrition for Food Security, Human Health and Environmental Protection*, C.J. Li et al. (Eds.), XV IPNC-International Plant Nutrition Colloquium, Tsinghua Univ. Press, Beijing (2005), 232-233.
- 15) A.C. BRIOZZO - D.A. TARZIA, “Existence, uniqueness and an explicit solution for a one phase Stefan problem for a non-classical heat equation”, in *International Conference on Free Boundary Problems: Theory and Applications (FBP’2005)*, I.N. Figueiredo - J. F. Rodrigues - L. Santos (Eds.), ISNM – International Series of Numerical Mathematics, Birkhäuser, Vol. 154 (2006), 117-124.
- 16) D.A. TARZIA, “El punto muerto financiero de un proyecto de inversión en crecimiento en función de la tasa de descuento”, in *ICF 2009, 9th International Conference in Finance*, R.A. Fornero (Ed), SADAF, 29 (2009), 237-255.
- 17) D.A. TARZIA, “Convergencia de una familia de problemas discretos de control óptimo elíptico distribuido respecto de un parámetro”, in *Proceedings of MECOM–CILAMCE 2010, IX Argentinean Congress on Computational Mechanics, II South American Congress on Computational Mechanics and XXXI Iberian-Latin American Congress on Computational Methods in Engineering*, Buenos Aires, 15-18 November 2010, E.N. Dvorkin – M.B. Goldschmit – M.A. Storti (Eds.), *Mecánica Computacional*, 29 (2010), 4851-4862.
- 18) J.C. REGINATO – J.L. BLENGINO - D.A. TARZIA, “A dynamic modeling of the pH of soils around roots of plants”, in *Proceedings of MECOM–CILAMCE 2010, IX Argentinean Congress on Computational Mechanics, II South American Congress on Computational Mechanics and XXXI Iberian-Latin American Congress on Computational Methods in Engineering*, Buenos Aires, 15-18 November 2010, E.N. Dvorkin – M.B. Goldschmit – M.A. Storti (Eds.), *Mecánica Computacional*, 29 (2010), pp. 2517-2525.
- 19) N.N. SALVA - D.A. TARZIA, “Un análisis de sensibilidad para la determinación simultánea de coeficientes térmicos a través de un proceso de cambio de fase con conductividad térmica dependiente de la temperatura”, in *Proceedings of MECOM–CILAMCE 2010, IX Argentinean Congress on Computational Mechanics, II South American Congress on Computational Mechanics and XXXI Iberian-Latin American Congress on Computational Methods in Engineering*, Buenos Aires, 15-18 November 2010, E.N. Dvorkin – M.B. Goldschmit – M.A. Storti (Eds.), *Mecánica Computacional*, 29 (2010), 5841-5848.
- 20) M. BOUKROUCHE – D.A. TARZIA, “On the non-classical heat equation for a semi-space n-dimensional”, 34 CNMAC 2012, SBMAC, 1395-1396.
- 21) J.C. REGINATO - J.L. BLENGINO ALBRIEU – D. A. TARZIA, “Mechanistic models of nutrient uptake under predicts or over predicts to low concentrations? A correct uptake formula”, in *XVII International Plant Nutrition Colloquium (IPNC’2013)*, Istanbul (Turkey), Proc. Book, 313-315.
- 22) M. BOUKROUCHE – D.A. TARZIA, “On existence, uniqueness, and convergence, of optimal control problems governed by parabolic variational inequalities”, in *25th IFIP TC 7 Conference, IFIP AICT 391, CSMO 2011*, D. Hoemberg – F. Troeltzsch (Eds.), Springer (2013), 76-84.
- 23) D.A. TARZIA, “Neumann solutions to fractional Lamé-Clapeyron-Stefan problems with heat flux or convective boundary conditions”, in *PANACM 2015, Proceedings of the 1<sup>st</sup> Pan-American Congress on Computational Mechanics*, S. Idelsohn – V. Sonzogni – A. Couthinho – M. Cruchaga – A. Lew – M. Cerrolaza (Eds.), CIMNE, Barcelona (2015), 849-858.
- 24) A.N. CERETANI - D.A. TARZIA, “Determination of two unknown thermal coefficients through a mushy zone with a convective overspecified boundary condition”, in *PANACM 2015, Proceedings of the 1<sup>st</sup> Pan-American Congress on Computational Mechanics*, S. Idelsohn – V. Sonzogni – A. Couthinho – M. Cruchaga – A. Lew – M. Cerrolaza (Eds.), CIMNE, Barcelona (2015), 869-875.
- 25) J.C. REGINATO – J.L. BLENGINO - D.A. TARZIA, “Cumulative nutrient uptake by roots of crops as simulated by fixed and moving boundary models. Corrections and improvements”, in *PANACM 2015, Proceedings of the 1<sup>st</sup> Pan-American Congress on Computational Mechanics*, S. Idelsohn – V.

Sonzogni – A. Couthinho – M. Cruchaga – A. Lew – M. Cerrolaza (Eds.), CIMNE, Barcelona (2015), 876-884.

- 26) D.A. TARZIA, “Properties of the financial break-even point in a simple investment project as a function of the discount rate”, World Finance Conference, Buenos Aires (2015), E-Proceedings, 113.
- 27) D.A. TARZIA, “Double convergence of a family of discrete distributed mixed elliptic optimal control problems with a parameter”, in Proceedings of the 27th IFIP TC 7 Conference on System Modeling and Optimization, CSMO 2015, IFIP AICT 494, L. Bociu and J.-A. Desideri and A. Habbal (Eds.), Springer, Berlin (2016), 493-504.

### **VI.3. Seminars or conferences given in:**

Escuela Politécnica (Quito, Ecuador), Laboratoire de Mécanique Théorique (Univ. Paris VI, Paris, France); Laboratoire d'Analyse Numérique (Univ. Paris VI, Paris, France); LNCC (Rio de Janeiro, Brazil); Univ. de Santiago de Chile (Santiago, Chile); Univ. Católica de Concepción (Concepción, Chile); Univ. degli Studi di Firenze (Firenze, Italy); Univ. Federal do Rio de Janeiro (Rio de Janeiro, Brazil); Univ. Federal do Rio Grande do Sul (Porto Alegre, Brazil); INRIA (Rocquencourt, France); Istituto di Analisi Numerica (Pavia, Italy); IMPA (Rio de Janeiro, Brazil); Wayne State University (Detroit, USA); Univ. Ancona (Ancona, Italy); Univ. Trieste (Trieste, Italy); Univ. Roma "La Sapienza" (Roma, Italy); Laboratoire des Matériaux et des Structures de Génie Civil, Unité Mixte de Recherche UMR 113 CNRS-LCPC (Noisy Champs, France); Université Paris-Nord (Univ. Paris 13, Villetaneuse, France); Univ. Padova (Padova, Italy), Univ. Lecce (Lecce, Italy); Univ. Técnica Federico Santa María, (Valparaíso, Chile), Univ. Trujillo (Trujillo, Peru), Univ. Saint Etienne (Saint Etienne, France), Jagiellonian University (Krakow, Poland), Campinas (Brazil), Univ. de Perpignan via Domitia (Perpignan, France).

### **Communications given in:**

Aguas do Lindoia (San Pablo, Brazil), Chiba (Japan), Cambridge (UK), Chiemsee (Germany), Coimbra (Portugal), Erice (Italy), Falerna (Italy), Gaeta (Italy), Hamburg (Germany), Heraklion-Crete (Greece), Irsee-Bavaria (Germany), Lyon (France), Madrid (Spain), Maubuisson (France), Milan (Italy), Montreal (Canada), Natal (Brazil), Perpignan (France), Seville (Spain), Sophia-Antipolis (Antibes, France), Stockholm (Sweden), Vancouver (Canada), Zakopane (Poland), Zurich (Switzerland).

**In Argentina at:** Bahía Blanca, Bariloche, Buenos Aires, Carlos Paz, Cruz Alta, Córdoba, Formosa, La Falda, La Plata, Mar del Plata, Mendoza, Neuquén, Paraná, Rafaela, Río Cuarto, Río Gallegos, Rosario, Rufino, Salta, San Juan, San Luis, Santa Fe, Santiago del Estero, Tandil, Tucumán, Valle Hermoso, Villa Giardino.



Domingo Alberto Tarzia