Marcela Beatriz Goldschmit

CURRICULUM VITAE

PERSONAL DATA

Name: GOLDSCHMIT, Marcela Beatriz
Office address: Av. Pueyrredon 2130 5A, C1119ACR, Buenos Aires, Argentina
Phone: (54)-11-48078348
e-mail: mgoldschmit@simytec.com

EDUCATION

Doctor in Chemical Engineering
Universidad Nacional del Litoral, Argentina, 1996.

Chemical Engineering
Universidad Nacional de La Plata, Argentina, 1981.

PROFESSIONAL ACTIVITY

1. Assistant Technician of CONICET, Reservoir Engineering Laboratory, Engineering School, Universidad Nacional de La Plata, April 1980-October 1981.
2. Assistant Professional of CONICET, Reservoir Engineering Laboratory, Engineering School, Universidad Nacional de La Plata, October 1981-April 1982.
3. Consultant of the Centro Privado de Cómputos, Santa Fé, September 1986- March 1987.
4. Associate Professional of CONICET, Chemical Engineering Department, Engineering School, Universidad de Buenos Aires, September 1987-September 1990.
5. Independent Consultant to the Center for Industrial Research (CINI), Fundación para el Desarrollo Tecnológico (FUDETEC), TECHINT Organization, Buenos Aires, September 1990-May 1992.
6. Research Engineering at the Center for Industrial Research (CINI), Fundación para el Desarrollo Tecnológico (FUDETEC), TECHINT Organization, Buenos Aires, June de 1992-November 1993.
7. Senior Research Engineering at the Center for Industrial Research (CINI), Fundación para el Desarrollo Tecnológico (FUDETEC), TECHINT Organization, Buenos Aires, Dicember 1993- 2000.
8. Head of Computational Mechanics Department at the Center for Industrial Research (CINI), Fundación para el Desarrollo Tecnológico (FUDETEC), TECHINT Organization, Campana, 2001-2005.

9. Head of Computational Mechanics Department at the Center for Industrial Research (CINI), TenarisSiderca, Campana, 2005-2006.

10. Senior Department Head of Computational Mechanics at the Center for Industrial Research (CINI), TenarisSiderca, Campana, 2006-July 2007.

11. Quality Assurance Manager at the Center for Industrial Research (CINI), TenarisSiderca, Campana, 2003-december 2007.

12. SIM&TEC, partner, January 2008 – present.

TEACHING EXPERIENCE

1. Teaching Assistant, Engineering School, Universidad Nacional de La Plata, April1979-March 1982.

2. Teaching Assistant, Regional School of Santa Fe, Universidad Tecnológica Nacional, June 1984-September 1984.

3. Assistant Professor at the Computer Science Department (Part-time), Regional School of Santa Fe, Universidad Tecnológica Nacional, September 1984-March 1985.

4. Associate Professor at the Computer Science Department (Part-time), Regional School of Santa Fe, Universidad Tecnológica Nacional, April 1986-March 1987.

5. Research Engineer at the Chemical Engineering Department, Engineering School, Universidad de Buenos Aires, April 1987-Febraury 1992.

6. Assistant Professor at the Computer Science Department (Part-time), Regional School of Buenos Aires, Universidad Tecnológica Nacional, April 1987-March 1991.

7. Visiting Research Engineer at the International Center for Numerical Methods in Engineering, CIMNE, Barcelona, Spain, January-May 1992.

8. Assistant Professor of Computational Mechanics (Part-time) Engineering School, Universidad de Buenos Aires, April 1995-April 1999.

9. Associate Professor of Computational Mechanics (Part-time) Engineering School, Universidad de Buenos Aires, May 1999-……

10. Visiting Full Professor of Computational Mechanics (Part-time) Engineering School, Universidad Nacional de La Plata, March 2003-2005.

FELLOWSHIPS

1. Research Fellowship of CONICET, Instituto para la Industria Química, INTEC, Universidad Nacional del Litoral, April 1982-March 1984.
2. Advanced Research Fellowship of CONICET, Instituto para la Industria Química, INTEC, Universidad Nacional del Litoral, April 1984-March 1986.
3. Fellowship of Universidad Federal de Rio de Janeiro, for the 1 Escola Brasileira de Otimizacão, COPPE-IM, Brasil, January 1989.
4. Fellowship of the International Center of Numerical Methods in Engineering, Barcelona, Spain, January-May 1992.

SOFTWARE DEVELOPMENT

TurFlow
Finite element code of turbulent flow including thermal effects, gas stirring, mass transfer.

Voyage
Finite element code of particle transport in a turbulent or laminar flow.

Hearth
Finite element code using radial base functions and a non-linear inverse model to simulate the temperature distribution and wear of the blast furnace hearth. It was installed on-line in TerniumSiderar.

CCAST
Finite element code using a non-linear inverse model to simulate the solidification process in the continuous casting. It was installed on-line in TerniumSiderar, and off-line in TenarisSiderca, TenarisDalmine, TenarisTamsa y TerniumSidor.

Grade
Numerical model to simulate the transition of the steel grade in the continuous casting intermix. It was installed on-line in TerniumSiderar, and offline in TenarisSiderca, TenarisDalmine and TenarisTamsa.

VD-Tephra
Numerical model to simulate the desgasification of liquid steel in a vacuum degassing process. It was installed off-line in TenarisTamsa.

GowFlow
Numerical model to simulate the oil-water-gas flow in oil wells.

QUALITY SYSTEM MANAGER

Quality Manager of the Center for Industrial Research, TenarisSiderca, 2003-2007.
Internal audit of Tenaris, 2003-present
Quality Assistant of Tenaris Technology Department and Argentina R&D Department, 2008-present

Approved Courses

- *Internal audit. ISO 9001:2003,* Georgia Institute of Technology, 2003.
- *Leader audit ISO 9001:2003,* Georgia Institute of Technology, 2004.
- *Quality management and Technical Competence in Testing Labs according ISO/IEC 17025*, Deutsches AkkreditierungsRat (DAR), 2004.
- *Laboratory Management - Role of the Quality Manager and Technical Management*, UKAS Assesment Managers, UK, 2005.

PUBLISHED JOURNAL PAPERS (refereed)

1. G.B. Savioli, M.B. Goldschmit y M.S. Bidner, “Discusion sobre las soluciones analíticas y numéricas de la ecuación radial de difusividad que representa el flujo en medios porosos”, *Revista Brasileira de Engenharia*, vol. 5, N° 2, 65- 79, 1988.

2. E.N. Dvorkin, A.P. Assanelli, M.A. Cruchaga, M.B. Goldschmit, E.G. Petöcz y R. A. Radovitzky, “Aplicaciones de mecánica computacional en la industria sidero-metalúrgica”, *Revista Internacional de Métodos Numéricos para Cálculo y Diseño en Ingeniería*, vol. 8, N° 4, 335-350, 1992.

3. M.B. Goldschmit, J.C. González y E.N. Dvorkin, “On a finite element model for analyzing the liquid slag development during continuous casting of round bars”, *Ironmaking & Steelmaking*, vol. 20, N° 5, 379-385, 1993.

4. E.N. Dvorkin, M.B. Goldschmit, D. Pantuso y E. A. Repetto, “Comentarios sobre algunas herramientas utilizadas en la resolución de problemas no-lineales de mecánica del continuo”, *Revista Internacional de Métodos Numéricos para Cálculo y Diseño en Ingeniería*, vol. 10, N° 1, 47-66, 1994.

5. M.B. Goldschmit y E.N. Dvorkin, “On the solution of the steady convectiondiffusion equation using quadratic elements: a Generalized Galerkin technique also realiable with distorted meshes”, *Engineering Computation*, vol. 11, 565- 573, 1994.

6. M.B. Goldschmit y M.A. Cavaliere, “Modelling of turbulent recirculating flows via an iterative (k-L)-predictor / (ε)-corrector scheme”, *Applied Mechanics Reviews*, vol. 48, N° 11, 1995.

7. E.N. Dvorkin, M.A. Cavaliere y M.B. Goldschmit, “A three field element via Augmented Lagrangian for modelling bulk metal forming processes”, *Computational Mechanics*, vol. 16, 1-8, 1995. M.B. Goldschmit y M.A. Cavaliere, “An iterative (k-L)-predictor / (ε)-corrector algorithm for solving (k-ε) turbulent models”, *Engineering Computations,* vol. 14, N° 4, 441-455, 1997.

8. E.N. Dvorkin, M.B. Goldschmit, M.A. Cavaliere, P.M. Amenta, O. Marini y W. Stroppiana, “2D finite element parametric studies of the flat rolling process”, *Journal of Materials Processing Technology,* vol. 68, 99-107, 1997.

9. E.N. Dvorkin, M.A. Cavaliere, M.B. Goldschmit y P.M. Amenta, “On the modelling of steel product rolling processes”, *International Journal for Forming Processes*, Vol. 1, N° 2, 211-242, 1998.

10. M.B. Goldschmit, R. J. Príncipe y M. Koslowski, “Applications of a (k-ε) model for the analysis of continuous casting processes*”, International Journal for Numerical Methods in Engineering*, **46**,1505-1519, 1999.

11. M.B. Goldschmit, S.P. Ferro, G.F. Walter, V.G. Aranda y J.A. Tena Morelos, “Numerical model for the minimization of intermixed round bars in a four line continuous caster”, *Metallurgical and Materials Transctions*, **32B**, 537-546, 2001.

1. M.A. Cavaliere, M.B. Goldschmit y E.N. Dvorkin, “Finite element analysis of steel rolling processes”, *Computer & Structures*, **79**, 2031-2037, 2001.

12. M.B. Goldschmit y A.H. Coppola Owen, “Numerical modeling of gas stirred ladles”, *Ironmaking & Steelmaking*, **28**, 337-341, 2001.

13. M.A. Cavaliere, M.B. Goldschmit y E.N. Dvorkin, “Finite element simulation of the steel plates hot rolling process”, *International Journal for Numerical Methods in Engineering*, **52**, 1411-1430, 2001.

14. S.P. Ferro, R.J. Principe y M.B. Goldschmit, “A new approach to the analysis of vessels RTD curves”, *Metallurgical and Materials Transactions*, **32B**, 1185- 1193, 2001.

15. M.B. Goldschmit, S.P. Ferro, R.J. Príncipe y A.H. Coppola Owen, “On the modeling of liquid steel processes”, *Latin American Applied Research*, **32**, 267- 273, 2002.

16. E.N. Dvorkin, M.A. Cavaliere y M.B. Goldschmit, “Finite element models in the steel industry. Part I: simulation of flat product manufacturing processes”, *Computer & Structures*, **81**, 559-573, 2003.

17. M.B. Goldschmit, S.P. Ferro, J.R. Príncipe y A.H. Coppola Owen, “Numerical modeling of liquid steel continuous casting processes”, *International Journal of Heat & Technology*, **21**, 1, 43-50, 2003.

18. M. Gonzalez, M.B. Goldschmit, A.P. Assanelli, E. Fernandez Berdaguer y E.N. Dvorkin, “Modeling of the solidification process in a continuous casting installation for steel slabs”, *Metallurgical and Materials Transactions B*, **34**, 4, 455-473, 2003.

19. M.B. Goldschmit, S.P. Ferro y A. H. Coppola Owen, “Modeling of liquid steel flow with free surface”, *Progress in Computational Fluid Dynamics*, **4**, 1, 12- 19, 2004.

20. G.M. Mazzaferro, M. Piva, S.P. Ferro, P. Bissio, M. Iglesias, A. Calvo and M.B. Goldschmit, “Experimental and numerical analysis of ladle teeming process”, *Ironmaking and Steelmaking*, **31**, N°6, 503-508, 2004.

21. G.M. Mazzaferro, S.P. Ferro and M.B. Goldschmit, “An algorithm for rotating axisymmetric flows: model, validation and industrial applications”, *International Journal for Numerical Methods in Fluids*, **48**, N° 10, 1101-1121, 2005.

2. M. Gonzalez and M.B. Goldschmit, “Inverse geometry heat transfer problem based on a radial basis functions geometry representation”, *International Journal for Numerical Methods in Engineering*, **65**, N° 8, 1243-1268, 2006.

22. G. Venturini and M. Goldschmit, “Gas-liquid reaction model in gas-stirred systems – Part 1: Numerical model”, *Metallurgical and Materials Transactions B,* **38B**, 461-475, 2007.

23. D. Hryb and M. Goldschmit, “Thermal interaction model between a fluid flow and a solid”, *Latin American Applied Research*, in press.

24. D. Hryb, M. Cardozo, S. Ferro and M. Goldschmit, “Particle transport in turbulent flow using both a Lagragian and an Eulerian formulations”, *International Communications in Heat and Mass Transfer*, in press

PUBLISHED IN CONFERENCE PROCEEDINGS (refereed)

1. M.S. Bidner y M.B. Goldschmit, "Previsiones de producción petrolífera mediante curvas de declinación optimizadas", Anales del *Primer Congreso Nacional de Hidrocarburos*, Buenos Aires, 1982.

2. M.S. Bidner y M.B. Goldschmit, "Análisis automático de curvas de producción. Parte I: Previsiones de producción de un pozo petrolífero. Parte II: Previsiones de producción de un reservorio petrolífero", Anales de las *Jornadas de Informática Aplicada a la Producción de Hidrocarburos*, Buenos Aires, 243-260, 1987.

3. S.C. Gabbanelli, P.C. Porcelli, M.B. Goldschmit y M.S. Bidner, "Simulación numérica de la inundación química de un yacimiento petrolífero aplicando el Método de las Características", Anales del *3rd. Latin Congress on Heat and Mass Transfer, México, CLATCAMA*, 1988.

4. P.C.Porcelli, M.B. Goldschmit, C.A. Grattoni y M.S. Bidner, "Modelo bifásico tricomponente de recuperación asistida de petróleo con sustancias químicas", *Mecánica Computacional*, vol. 8, 200-213, 1988.

5. S.C. Gabbanelli, P.C. Porcelli, M.B. Goldschmit y M.S. Bidner, "Modelling a chemical flood by applying the Modified Method of Characteristics", Anales del *5th. European Symposium on Enhanced Oil Recovery*, Hungria, 429-438, 1989.

6. M.B. Goldschmit y E.N. Dvorkin, "A generalized Galerkin technique for solving the stationary convection-diffusion equation. Effect of mesh distortions", Actas del *Congreso Internacional sobre Métodos Numéricos en Ingeniería y Ciencias Aplicadas*, Chile, 1309-1318, 1992.

7. M.B. Goldschmit, M.A. Cavaliere y R.A. Radovitzky, "A predictor-corrector iterative scheme for solving the k-ε model equations", *IACM - WCCM III, The Third World Congress on Computational Mechanics*, vol. 1, 184-185, Japon 1994.

8. M.B. Goldschmit y M.A. Cavaliere, "Modelos de turbulencia y su implementación en el código de elementos finitos FANTOM", *IV Congreso Argentino de Mecánica Computacional, MECOM'94*, Mar del Plata, vol. XIV, 298-307, 1994.

9. M.B. Goldschmit y M.A. Cavaliere, "Numerical solution of turbulent recirculating flows with an iterative (k-L)-predictor / (ε)-corrector scheme", *The Fourth Pan American Congress of Applied Mechanics*, Buenos Aires, vol. III, 89-94, 1995.

10. E.N. Dvorkin, M.A. Cavaliere y M.B. Goldschmit, "A three field element via Augmented Lagrangian for modelling incompressible viscoplastic flows", COMPLAS 4, *Fourth International Congress on Computational Plasticity*, Barcelona, España, 1995.

11. E.N. Dvorkin, M.B. Goldschmit, M.A. Cavaliere y P.M. Amenta, "On the modelling of bulk metal forming processes", ECCOMAS 96, *The Second ECCOMAS Conference on Numerical Methods in Engineering*, Paris, Francia, 1996.

12. M.A.Cavaliere, M.B. Goldschmit, P.M. Amenta y E.N. Dvorkin, "Modelado de procesos de conformado de metales", *V Congreso Argentino de Mecánica Computacional, MECOM'96*, Tucuman, 1996.

13. M.A. Cavaliere, M.B. Goldschmit y E.N. Dvorkin, "3D modeling of bulk metal forming processes via the flow formulation and the pseudo-concentrations technique", COMPLAS 5, *Fifth International Congress on Computational Plasticity*, Barcelona, España, 1997.

14. M.B. Goldschmit, "Computational fluid mechanics applications in continuous casting", *80th Steelmaking Conference*, Chicago, EEUU, 1997.

15. E.N. Dvorkin, M.B. Goldschmit y M.A. Cavaliere, "Computational mechanics applications at Siderar Steel Mill", 2nd. International Congress on Metallurgy and Materials Technology, São Paulo, Brasil, 1997.

16. A. Campos y M.B. Goldschmit, "Estudio de la distribución de flujo en el tundish de Siderca", 2nd. International Congress on Metallurgy and Materials Technology, São Paulo, Brasil, 1997.

17. A. Campos, M. Goldschmit, E. Rey, G. Walter, P. Ventura, M. Cermignani, E. Guastella, A. Garamendy y J. Madias, "Mejoras en el tundish de la colada continua II de SIDERCA", *11vo. Seminario de Colada Continua*, Octubre 1997.

18. M.B. Goldschmit y J.R. Príncipe, "Applications of a (k-ε) model for the analysis of steelmaking processes", *Fourth World Congress on Computational Mechanics,* Buenos Aires, Julio 1998.

19. M.A. Cavaliere, M.B. Goldschmit, P. Amenta y E.N. Dvorkin, "Finite element simulation of rolling processes", *Fourth World Congress on Computational Mechanics,* Buenos Aires, Julio 1998.

20. M.B. Goldschmit, R.J. Príncipe y M. Koslowski, "Numerical modeling of submerged entry nozzle", *3rd. European Conference on Continuous Casting*, Madrid, Octubre 1998.

21. E. N. Dvorkin, M.A. Cavaliere, M.G. Zielonka y M.B. Goldschmit, "New developments for the modeling of metal rolling processes", *ECCM'99 – European Conference on Computational Mechanics (Solids, Structures and Coupled Problems in Engineering)*, Munchen, Germany, Septiembre 1999.

22. E.N. Dvorkin, A.P. Assanelli y M.B. Goldschmit, "Aplicaciones del método de elementos finitos en desarrollos tecnológicos para la industria siderúrgica", *IV Congreso de Métodos Numéricos en Ingeniería,* Sevilla, Junio 1999.

23. R.J. Príncipe y M.B. Goldschmit, “Las condiciones de contorno sobre la pared en el modelado de flujo turbulento”, *VI Congreso Argentino de Mecánica Computacional, MECOM’99*, Mendoza, 1999.

24. M.B. Goldschmit, S.P. Ferro, G.F. Walter, V.H. Aranda y J. Tena Morelos, “Modelo de transición de grado de la CC2 de SIDERCA”, *12° Seminario de Acería del IAS y 2° Encuentro de la Sección Argentina de la Iron and Steel Society*, Buenos Aires – Argentina, 1999.

25. F. Robiglio, A. Campos, J. Paiuk, M. Maldovan, J. Principe, A. Pignotti y M. Goldschmit, “Diseño y modelado numérico del EMS en SIDERCA”, *12° Seminario de Acería del IAS y 2° Encuentro de la Sección Argentina de la Iron and Steel Society*, Buenos Aires – Argentina, 1999.

26. M.B. Goldschmit, R.J. Príncipe, S. Ferro, J. Petroni, A. Castellá y G. Di Gresia, “Modelado numérico de buzas y moldes de planchones”, *12° Seminario de Acería del IAS y 2° Encuentro de la Sección Argentina de la Iron and Steel Society*, Buenos Aires – Argentina, 1999.

27. M. Maldovan, J. Príncipe, G. Sánchez, A. Pignotti y M. Goldschmit, “Numerical modeling of continuous casting of rounds with electromagnetic stirring”, *European Congress on Computational Methods in Applied Sciences and Engineering, ECCOMAS 2000*, Barcelona, España, 2000.

28. M.B. Goldschmit y S.P. Ferro, “Model for optimization of the grade transition in the round continuous casting”, *European Congress on Computational Methods in Applied Sciences and Engineering, ECCOMAS 2000*, Barcelona, España, 2000.

29. M. Cavaliere, M. Goldschmit y E. Dvorkin, “On the solution of coupled thermo-mechanical problems via the pseudo-concentrations technique”, *European Congress on Computational Methods in Applied Sciences and Engineering, ECCOMAS 2000*, Barcelona, España, 2000.

30. M.A. Cavaliere, R.G. Toscano, M.B. Goldschmit y E.N. Dvorkin, “Aplicaciones del método de elementos finitos al estudio de procesos de laminación de chapas”, ENIEF 2000, Bariloche, 2000.

31. M. Gonzalez, E. Fernandez-Berdaguer, M. Goldschmit y E.N. Dvorkin, “Evaluation of the heat transfer coefficients in the mold of steel slabs continuous casting installations”, IX Reunión de Trabajo en Procesamiento de la Información y Control, IX RPIC, Santa Fé, 12 al 14 de Setiembre 2001.

32. M.B. Goldschmit, S.P. Ferro, R.J. Príncipe y A.H. Coppola Owen, “Numerical modeling of liquid steel flow in continuous casting processes”, *VII International Seminar on Recents Advances in Fluid Mechanics, Physics of Fluids and Associated Complex Systems*, Buenos Aires, Argentina, 2001.

33. S.P. Ferro, R.J. Príncipe y M.B. Goldschmit, “Residence time distribution in tundishes by using convection-diffusion volumes”, ”, *13° Seminario de Acería del IAS y 3° Encuentro de la Sección Argentina de la Iron and Steel Society*, Buenos Aires – Argentina, 2001.

34. J. Príncipe, G. Sánchez, A. Pignotti y M. Goldschmit, “Numerical modeling of electromagnetic stirring used in the TENARIS group continuous casting facilities”, *13° Seminario de Acería del IAS y 3° Encuentro de la Sección Argentina de la Iron and Steel Society*, Buenos Aires – Argentina, 2001.

35. S.P. Ferro and M.B. Goldschmit, “Análisis de flujos con superficie libre en problemas industrials”, ", *Mec. Comput.*, Vol.20, (Ed. F.Flores), 2001.

36. S.P. Ferro, M.B. Goldschmit y H. Coppola Owen, “Analysis of flows with free surface in the steel industry”, *Fifth World Congress on Computational Mechanics,* Viena, Austria, 2002.

37. M.A. Cavaliere, D. Berazategui, M. Goldschmit, E. Dvorkin y L. Montelatici, “Modeling of the piercing process. Preliminary results”, *14ª. Conferencia de Laminación y 4° Encuentro de la Sección Argentina de la Iron and Steel Society*, Buenos Aires – Argentina, 2002.

38. M.B. Goldschmit, S.P. Ferro y G. Mazzaferro, “Numerical modelling of liquid steel flow with free surface”, 4th. European Continuous Casting Conference, Birmingham, UK, 2002.

39. M. Gonzalez, M. Goldschmit, R. Musante, R. Venica, G. Di Gresia y W. Balante, “Prediction of whale slab conditions using a heat transfer model of the steel slab continuous caster”, *14th. Steelmaking Conference*, San Nicolas, Argentina, 2003.

40. M. Gonzalez, M. Goldschmit, J. Zubimendi, N. Gonzalez, R. Ametrano, F. Giandomenico, “Thermal penetration model to estimate blast furnace hearth conditions”, *14th. Steelmaking Conference*, San Nicolas, Argentina, 2003.

41. M.B. Goldschmit y G.N. Venturini, “Finite element algebraic slip model for two phase dispersed flow”, *European Congress on Computational Methods in Applied Sciences and Engineering, ECCOMAS 2004*, Jyvaskyla, Finlandia, 2004.

42. M. Gonzalez y M.B. Goldschmit, “Inverse geometry problem of estimating the location of the 1150°C isotherm in a blast furnace hearth”, *Mecánica Computacional Vol. XXIII, ENIEF 2004*, 2365-2380, 2004.

43. M.A. Cavaliere, M.B. Goldschmit y E.N. Dvorkin, “Implementación del acoplamiento termo-mecánico en procesos de conformado masivo de metales utilizando el método de las pseudo-concentraciones”, *Mecánica Computacional Vol. XXIII, ENIEF 2004*, 2333-2352, 2004.

44. G. Venturini and M.B. Goldschmit, "Mass transfer model of gas-liquid reactions inside a gas-stirred ladle", *Simulation and Modeling of Metallurgical processes in steelmaking*, Steelsim 2005, Brno, Czech Republic, October 2005.

45. M. Goldschmit, D. Hryb, S. Ferro and M. Cardozo, "Numerical modeling of particle transport in turbulent flow" (extended abstract), 7th. World Congress on computational Mechanics, WCCM VII, Los Angles, California, Estados Unidos, July 2006.

46. G. Gomez, J. Schicht, T. Perez, M. Goldschmit, A. Vigliocco, "Thermo- Metallurgical Model of the Cooling Table for a Flat Product Hot Rolling Mill", *Materials Science and Technology(MS&T),* Cincinnati, United State, October 2006.

47. D.E. Hryb and M.B. Goldschmit, "Modelo fluidodinámico-térmico acoplado entre fluido y contornos sólidos", *ENIEF 2006*, Santa Fe, Argentina, November 2006.

48. D.Hryb, M. Goldschmit and D. Migliorino, "Fluiddynamic-thermal numerical model with dross particle transport in a 55% Al-Zn pot", *InterZac 2006*, Monterrey, Mexico, November 2006.

49. D. Hryb, M. Goldschmit and D. Migliorino, "Modelo fluidodinámico térmico del pote de galvanizado", *16 Conferencia de Laminación*, San Nicolás, Argentina, November 2006.

50. S. Dengra and M. Goldschmit, poster: "Mathematical modeling of the fluid dynamic and mass transfer at the liquid/bubble interface in the liquid steel nitrogenation process", *Física de Fluidos*, Mendoza, Argentina, December 2006.

51. T. Perez, C. Morales, S. Ferro and M. Goldschmit, "An Integrated Tool to Select OCTG Materials", *NACE Corrosion 2007*, Nashville, Estados Unidos, March 2007.

52. S. Ferro, D. Hryb, M. Cardozo and M. Goldschmit, "Finite element modeling of turbulent transport of particles using both Lagrangian and Eulerian formulations", *14th International conference on Finite elements in Flow Problems*, *FEF07*, Santa Fe, New Mexico, United State, March 2008

53. S. Ferro and M. Goldschmit, "A numerical model for multiphase flow in oilproduction wells, X LACPEC 07, *X Latin American and Caribbean Petroleum Engineering Conference*, Buenos Aires, Argentina, April 2007.

54. M. Goldschmit and D. Hryb, "Fluid dynamic-thermal coupled model between fluid and solid contours", *Eigth World Congress on Computational Mechanics,* WCCM8, Venice, Italy, July 2008.

55. G. Gomez, J. Schich, M. Vicente Alvarez, F. Balzarotti, S. Moriconi, M. Goldschmit and T. Perez, "Thermo-metallurgical model of the run out talbe and coller applied to Ternium Siderar", *Materials Science &Technology,MS&T2008*, Pittsburgh, United State, October 2008.

Marcela Beatriz Goldschmit
CURRICULUM VITAE

PUBLISHED IN BOOKS

Nonlinear Continua, Eduardo N. Dvorkin and Marcela B. Goldschmit, Springer, ISBN-10 3-540-24985-0 , ISBN-13 978-3-540-24895-6, November 2005.

PUBLISHED PAPERS (non-refereed)

1. M.S. Bidner, M. B. Goldschmit y N. Galacho, “Coordinación Sistema Científico - Tecnológico Nacional - Empresas”.

2. M.S. Bidner, N. Galacho y M.B. Goldschmit, “Brasil. El Centro de Investigación y Desarrollo de Petrobras”.

3. Publicados: “Diagnóstico sobre el Estado de las Tecnologías de Avanzada en la Recuperación de Petróleo y Participación del Sistema Científico – Tecnológico Nacional en el Desarrollo y Adaptación de las mismas”, *Secretaria de Energía* de Argentina, Agosto 1987.

4. P. Assanelli y M.B. Goldschmit, “El CINI - Centro de Investigaciones en Industrias sidero-metalúrgicas”, Noviembre 1991.

5. E.N. Dvorkin, A.P. Assanelli y M.B. Goldschmit, “Aplicaciones de la mecánica computacional en las industrias sidero-metalúrgicas de la Organización Techint”, *Boletin Informativo Techint*, N° 269, 93-112, 1992.

6. E.N.Dvorkin y M.B. Goldschmit, “Algunos desarrollos en mecánica computacional realizados en CINI”, Ciencia y Técnica, FI-UBA, 15-23, 1993.

7. M.B. Goldschmit y D.D.H. Johnson, “Development of a severe thermal cycling facility for testing OCTG premium connections”, *Society of Petroleum Engineering*, SPE 28017, 1994.

EDITORIAL BOARDS OF SCIENTIFIC JOURNALS

Member of the Editorial Board of the journal “International Journal of Dynamics of Fluids”, IJFD, (2004 - …)

ATTENDANCE TO CONFERENCES

Member of the Organizing Commitee of the VI Congreso Latino Americano sobre Métodos Computacionales para Ingeniería y I Congreso Argentino de Mecánica Computacional (MECOM'85), Paraná-Santa Fé, Octuber 1985..

Member of the Organizing Commitee of the Primer Congreso Federal de Informática en la Educación, Santa Fé, July 1986.

Chairman of the Computational Mechanics Seminar, Instituto de Cálculo, Universidad de Buenos Aires, 1992-1995.

Member of the Organizing Commitee of the IV Congreso Argentino de Mecánica Computacional (MECOM'94), Mar del Plata, November 1994.

Chairman of the Workshop in Continuous Casting, Siderar - Fudetec - Siderca, Campana, May 1996.

Local Organizing Committe Chair-Person of the Fourth World Congress on Computational Mechanics, Buenos Aires, July 1998. Chairman de la Sesion Oil reservoir simulation and process. Chairman de la Sesion Process and Chemical Engineering.

Chairman of the Industrial Forming IV Session of the European Congress on Computational Methods in Applied Sciences and Engineering, Barcelona, Spain, 2000.

Invited speaker of the VII International Seminar on Recents Advances in Fluid Mechanics, Physics of Fluids and Associated Complex Systems, Buenos Aires, Argentina, 2001.

Member of the Organizing Commitee of the First South-American Congress on Computational Mechanics, Terceiro Congresso Brasileiro de Mecánica Computacional and Séptimo congreso Argentino de Mecánica Computacional, Paraná, Argentina, 2002.

Invited speaker. Organizer of the Special Session of Modeling of Continuous Casting Processes.

Chairman of the Fluid Mechanics I Session of the XIII Congreso sobre Métodos Numéricos y sus Aplicaciones, Bahia Blanca, Argentina, 2003.

Invited speaker of the III International Conference on Mathematics Applied to Engineering and Mathematics Eduction in Engineering, Buenos Aires, Argentina, 2005.

Marcela Beatriz Goldschmit
CURRICULUM VITAE

THESIS SUPERVISED

1. Marisol Koslowsky, Thesis for a Batchelor degree in Physics, Science School – UBA, “Ecuaciones de convección-difusión”, co-directed with Dr. E.N. Dvorkin, 1998.

2. Javier Príncipe, Thesis for a Batchelor degree in Physics, Science School – UBA, “Método de elementos finitos en el modelado de flujo turbulento”, 1999.

3. Heriberto Coppola Owen, Thesis for a Batchelor degree in Mechanical Engineering, Engineering School – UBA, “Modelado de hornos de cuchara”, 2001.

4. Marcial Gonzalez, Thesis for a Batchelor degree in Mechanical Engineering, Engineering School – UBA, “Modelado de la transferencia térmica de la colada continua de planchones”, co-directed with Dr. E.N. Dvorkin and Dr. E. Fernandez Berdaguer, 2002.

5. Gastón Mazzaferro, Thesis for a Batchelor degree in Mechanical Engineering, Engineering School – UBA, “Modelado de flujos de acero líquido con superficie libre”, co-directed with Dr. S. Ferro, 2003.

6. Jonatan Schicht, Thesis for a Batchelor degree in Mechanical Engineering, Engineering School – UBA, “Modelado Termo-Metalúrgico Aplicado al Enfriamiento de Aceros”, co-directed with Dr. G. Gomez, 2004.

7. Gabriela Venturini, Thesis for a Batchelor degree in Chemical Engineering, Engineering School – UBA, “Modelado del patrón de flujo y transferencia de masa en sistemas agitados por intección de gas”, 2004.

8. Damian Hryb, PhD Thesis, Engineering School –UBA, “Modelado numérico del proceso de inmersión en caliente de chapas de acero en potes de *Zn-Al*”, Codirected with Dr. Perla Balbuena, in progress.

9. Adan Levy, Thesis for a Batchelor degree in Mechanical Engineering, Engineering School – UBA, “Modelado del flujo en tuberías de producción de petróleo y gas”,co-directed with Dr. S. Ferro, 2008.

PROFESSIONAL COMMITTEES

1. Production Committee at the Instituto Argentino del Petróleo, 1987-1988.

2. Advisory Committee at the Chemical Engineering Department, Engineering School, Universidad de Buenos Aires, 1988-1989
3. Chemical Engineering Curricula Committee, Engineering School, Universidad de Buenos Aires, 1995-...
4. Goverment Board at the Engineering School, Universidad de Buenos Aires, March 1996-March1998.
5. Member of the Technology Committee, Universidad de Buenos Aires, 1999 - 2002.
6. Member of the Doctoral Studies Committee, School of Engineering, Universidad de Buenos Aires, 2001 – 2005. **Coordinator** of the Committee from June 2004 to May 2005.

EVALUATION ACTIVITIES

1. *Latin American Applied Research*, evaluation of papers.
2. *International Journal for Numerical Methods in Engineering,* evaluation of papers.
3. *National Agency of Science and Technology - Argentina,* evaluation of BID projects.
4. *Universidad de Buenos Aires,* review of projects.
5. *Computers and Structures,* review of papers.
6. *International Journal of Numerical Methods for Heat and Fluid Flow,* review of papers.
7. *Universidad Nacional del Sur,* Member of the examination board in two contests for selecting faculty members specialized in Fluid Mechanics, 10th September 2004, Engineering School.
8. *Fluid Dynamics & Materials Processing,* review of papers.
9. *Journal of Metallurgy,* review of papers.

VISITS TO RESEARCH CENTERS

International Center for Numerical Methods en Engineering, Barcelona, Spain, February de 1995.

International Center for Numerical Methods en Engineering, Barcelona, Spain, June de 1996.

Mc Gill Metal Processing Centre, Department of Mining and Metallurgical Engineering de Mc Gill University, Montreal, Canada, 9-12 October 2001.

Physical and Mathematical Laboratorie, Escuela Superior de Ingeniería Química e Industrias Extractivas, Instituto Politécnico Nacional de Mexico, Mexico, 6-10 May 2002.

Center of Research CORUS, Teesside, Inglaterra, 15-16 October 2002.

RESEARCH CENTERS

1. Profesor Visitante, en el Centro Internacional de Métodos Numéricos en Ingeniería, Barcelona, España, Febrero de 1995.
2. Profesor Visitante, en el Centro Internacional de Métodos Numéricos en Ingeniería, Barcelona, España, Junio de 1996.
3. Profesor Visitante, en el Mc Gill Metal Processing Centre, Department of Mining and Metallurgical Engineering de Mc Gill University, Montreal, Canadá, 9-12 Octubre 2001.
4. Profesor Visitante, en el Laboratorio de Modelación Física y Matemática de la Escuela Superior de Ingeniería Química e Industrias Extractivas del Instituto Politécnico Nacional de México, México, 6-10 Mayo 2002.
5. Visitante Centro de Investigación de CORUS- British Steel, Teesside, Inglaterra, 15-16 de Octubre 2002.