

## Univ.-Prof. Dr. Gioia Falcone

Head of Department - Geothermal Engineering & Integrated Energy Systems

Director - Institute of Petroleum Engineering

Clausthal University of Technology

Germany

### Curriculum Vitae

#### Education

- Nov 07 Diploma of Imperial College (DIC) in Chemical Engineering, Imperial College London (UK).
- Jan 06 Ph.D. in Chemical Engineering, Imperial College London (UK). Thesis: "Modelling of Flows in Vertical Pipes and its Application to Multiphase Flow Metering at High Gas Content and to the Prediction of Well Performance" – Supervised by Prof. G.F. Hewitt and Prof. S.M. Richardson.
- Nov 99 Diploma of Imperial College (DIC) in Petroleum Engineering, Imperial College London (UK).
- Nov 99 M.Sc. in Petroleum Engineering, Imperial College London (UK). Gained Distinction on the final project. Thesis: "The Accuracy of Vertical Lift Performance Correlations over Field Life" - Supervised by Dr. V.Vesovic and Enterprise Oil staff.
- May 98 *Laurea* degree (MS equivalent) *summa cum laude* in Environmental/Georesources Engineering, Sapienza University of Rome (IT). Thesis: "Critical Analysis and Experimental Validation of the Ashford-Pierce Model to Calculate the Flow Rate through Wellhead Choke Valves" – Supervised by Prof. U. Bilardo and Prof. C. Alimonti.

#### Professional Experience

- May 15 - present Visiting Professor, Dept. of Earth Science and Engineering, **Imperial College London** (UK).
- Apr 14 – present Director, Institute of Petroleum Engineering, **Clausthal University of Technology** (DE).
- May 14 – Jul 14 Visiting Professor for Research, Dept. of Chemical, Materials and Environmental Engineering, **Sapienza University of Rome** (IT).
- Nov 11 – present Professor in Geothermal Energy (W3 - Endowed Chair), Institute of Petroleum Engineering, **Clausthal University of Technology** (DE).
- Oct 11 – Aug 13 Adjunct Associate Professor in Petroleum Engineering, **Texas A&M University** (US).
- Sep 11 Associate Professor in Petroleum Engineering, Faculty Member of the Ocean Drilling and Sustainable Earth Science (ODASES) partnership, and Chevron Corporation Faculty Fellow in Petroleum Engineering, **Texas A&M University** (US).
- Jan 06 – Aug 11 Assistant Professor in Petroleum Engineering, Faculty Member of the Ocean Drilling and Sustainable Earth Science (ODASES) partnership, and Chevron Corporation Faculty Fellow in Petroleum Engineering, **Texas A&M University** (US). [*Granted tenure and promotion to Associate Professor in March 2011 – effective 1 September 2011.*]
- Feb 03 – Nov 05 Research Reservoir Engineer, Geoscience Research Centre, **TOTAL E&P**, London (UK).
- History Matching, 4D Reservoir Monitoring and Petro-Elastic Modelling.
  - Supervisor of M.Sc. summer students and VIEs.
  - Seconded to Imperial College Oct 04 – Nov 05.
- Dec 02-Jan 03 Production Technologist, **Shell E&P**, Aberdeen (UK), post acquisition of Enterprise Oil.
- Production Optimization with the Producing The Limit (PTL) group.

- Sep 99-Nov 02      Petroleum Engineer, **Enterprise Oil**, Aberdeen (UK).
- Offshore experience (UK North Sea): drilling, coring, open/cased-hole logging, wireline/slickline/coiled tubing operations, wellhead and Christmas tree maintenance, production optimization.
  - Reservoir Engineering and Production Optimization within the UK Operated and Non-Operated Assets Teams.
  - Production Reporting for the UK assets.
  - Engineering Services: onshore technical support to the Nelson platform and supervision of Production Engineering operations offshore.
  - Involved with the recruitment of graduate petroleum engineers.
- May 99-Sep 99      Temporary employment with **Enterprise Oil**, London (UK).
- Carry out individual project for M.Sc. thesis.
- Sep 97-May 98      Temporary employment with **ENI-Agip**, Milan (IT).
- Carry out individual project for *Laurea* thesis.

### Professional, Academic Roles and Service

Society of Petroleum Engineers (SPE): Member (1998 to present); Member of ATCE Technical Subcommittee for Well Operations (2003-2007); Member of ATCE Technical Program Committee (Chairperson of the Technical Subcommittee for Well Operations) (2005); Chairperson of Production Management session at the ATCE (2004); Member of the Projects, Facilities and Construction Award Committee (2008-2011); Member of Program Committee for the LACPEC (2009-present); Chairperson of three technical session at the LACPEC (2010); Chairperson of the Integrated Gas technologies Management session at the LACPEC (2009); Member of the Planning Committee for the SPE CO<sub>2</sub> Storage and Utilization Conference (2010); Memberships Chairperson for R&D Technical Section (2007-2008).

Artificial Lift R&D Council (ALRDC): Member (2015 to present).

United Nations Economic Commission for Europe (UNECE): Member of the Expert Group on Resource Classification (2012 to present); Member of the Renewable Reserves Taskforce (2012 to present); Member of the Bureau of the Expert Group on Resource Classification (2014 to present).

International Geothermal Association (IGA): Member (2011 to present); Member of the Resources and Reserves Committee (2013 to present); Initiator of the MoU between IGA and UNECE to develop a globally applicable harmonized standard for reporting geothermal resources (signed in September 2014); Leader of the Working Group to develop the geothermal specifications for the UNFC (2015-present).

Geothermal Resources Council (GRC): Member (2013 to present).

European Geothermal Council (EGEC): Member (2012 to present).

Drilling Network Niedersachsen (DNN): Member of Geothermal Steering Committee (2012 to present).

Geothermal Business Association (Wirtschaftsforum Geothermie – WFG): Member of Academic Advisory Board (2012 to present).

Energie-Forschungszentrum Niedersachsen (EFZN): Member (2012 to present).

Scientific Cooperation Agreement TU Clausthal / Sapienza University of Rome for research and education in the area of Geothermal Energy: Promoter and signatory (March 2012).

Erasmus Research Agreement TU Clausthal / Sapienza University of Rome for the mobility of professors and researchers: Promoter and co-signatory (Nov. 2012).

Exchange Agreement between TU Clausthal / Federal University of Santa Catarina in Brazil: co-promoter (December 2012).

M.Sc. Petroleum Engineering Applications Selection Committee, TU Clausthal, ITE: Member (2012-2013).

M.Sc. Geothermal Engineering Applications Selection Committee, TU Clausthal, ITE: Member (2014-present).

Research Council of Norway: Member of Expert Panel on Integrated Operations (2008); Member of Scientific Committee for the Centres for Research-based Innovation (2010).

Sapienza University of Rome: Visiting Lecturer (2007 to present); Visiting Professor for Research at the Dept. of Chemical, Materials and Environmental Engineering (May-July 2014).

Geothermal Energy Science: Referee (2014 to present).

Experimental Thermal and Fluid Science: Reviewer (2010 to present).

Journal of Natural Gas Science & Engineering: Reviewer (2010).

Journal of Canadian Petroleum Technology: Reviewer (2010 to present).

SPE Production & Operations: Reviewer (2010 to present).

SPE Projects, Facilities and Construction: Technical Editor (2006-2009).

SPE Journal: Reviewer (2009 to present).

Natural Resources Research: Reviewer (2009).

Nuclear Engineering and Design: Reviewer (2008).

BHR Group Limited - International Conference on Multiphase Production Technology: Referee (2007).

Scientific Journals International: Member of Review Board (2006 to present).

The American Society of Mechanical Engineers (ASME International) – OMAE Conference: Chairperson of the Pumping and Metering Challenges in Complex Production Systems session (2007).

Multiphase Measurement Roundtable: Member of Advisory Board (2006-2010); Chair (2009-2010); Chairperson of Use of Multiphase Meter Data for Production Optimization and Reservoir Eng session (2008-2009).

Multiphase User Roundtable South America: Member Advisory Board (2007-2008).

Texas A&M University: Faculty Member of the Ocean Drilling and Sustainable Earth Science (ODASES) partnership (2006-2011); Member of the Faculty Senate (2010-2011); Member of the PETE Undergraduate Curriculum Committee (2006-2009); Member of the PETE Faculty Excellence Awards Committee (2009-2010); Member of the PETE Undergraduate Scholarship Committee (2010); Teaching Mentor, Graduate Teaching Academy (GTA), Teaching Mentor Program (2009); Member of the Steering Committee of the Crisman Institute for Petroleum Research (2010-2011).

## **Honors, Awards and Scholarships**

Tenure and promotion to Associate Professor at Texas A&M University (2011).

SPE Young Professional Paper Certificate Recipient, SPE ATCE Conference, 2<sup>nd</sup> Annual ATCE YP Paper Contest, best paper written primarily by a YP in the Well Operations discipline (2009).

SPE Young Professional Paper Certificate Recipient, SPE ATCE Conference, in recognition of "exemplary paper contribution to the technical discipline of Projects, Facilities, and Construction" (2008).

Chevron Corporation Faculty Fellowship at Texas A&M University, Appointed as the inaugural holder (2008-2011).

Environmental Drilling Project - Disappearing Roads Contest, Co-advisor of 2<sup>nd</sup> place undergraduate team, sponsored by NETL, TTI, GPRI, HARC (with Dr. C. Teodoriu) (2008).

Research support from Enterprise Oil, Shell and Total for the part-time Ph.D. studies (2000-2005)

Scholarship from ENI-Agip for the M.Sc. course at Imperial College (1998-1999).

National Professional Petroleum Competition ("Premio Professione Petrolio", Italy), ENI-Agip, Winner of three consecutive annual awards and scholarships for special commitment and achievements in the petroleum engineering education (1994-1997).

Literary prize from the Association of Italian Readers ("Unione Italiana Lettori") (1991).

## Academic Courses Taught

### Undergraduate courses at Texas A&M University:

- PETE 310 Reservoir Fluids (Fall 2006)
- PETE 323 Reservoir Models (Spring 2006)
- PETE 416 Production Enhancement (Spring 2008, 2009, 2010, 2011)

### Graduate courses at Texas A&M University:

- PETE 662 Production Engineering (Spring 2007)
- PETE 689 Integrated Production Optimisation (New course) (Fall 2007)
- PETE 689 CO<sub>2</sub> Capture and Uses: Sequestration and Enhanced Oil Recovery (New course. Course coordinator with Dr. B. Jafarpour and Dr. C. Laird) (Fall 2008, 2009)
- PETE 618 Modern Petroleum Production (Fall 2008, 2009, 2010).
- PETE 644 (*as Adjunct Associate Professor*) CO<sub>2</sub> Capture and Uses: Sequestration and Enhanced Oil Recovery - Module 4: Production and Injection Aspects, Transportation, Compression (Spring 2012).

### Undergraduate courses at TU Clausthal:

- Oil and Gas Production (WS 2012-2013, WS 2014-2015).

### Graduate courses at TU Clausthal:

- Promoter and founder of the new MS program in Geothermal Engineering (started in WS 2014-2015)
- Principles of Geothermics (WS 2014-2015)
- Exploration, Characterisation and Development of Deep Geothermal Reservoirs (WS 2011-2012, WS 2012-2013, WS 2013-2014)
- Advanced Hydrocarbon Production (WS 2012-2013, WS 2014-2015)
- Advanced Seminar Topics (SS 2012, SS 2013)
- MS Group Project (WS 2011-2012, WS 2012-2013, WS 2013-2014)
- MS Group Project Seminar (WS 2011-2012, WS 2012-2013, WS 2013-2014)
- Geothermal Reservoir Engineering (planned - SS 2015)
- Project for Geothermal Reservoir Engineering (planned - SS 2015)

## External Short Courses for the Industry

- Multiphase Flow Metering (2006 to present)
- Production Engineering (2007 to present)
- Introduction to Petroleum Engineering (2009 to present)
- Integrated Production Management (2010 to present)
- Gas Production Engineering (2014 to present)
- Production Technology (2015 to present)
- Introduction to Production Operations (2015 to present)

## Spoken languages

- Italian (mother tongue)
- English (fluent)
- French (fluent)
- German (intermediate)
- Spanish (intermediate)

## Technical publications and presentations

### Books and authoritative references

#### *Books:*

1. **Falcone, G.**, Hewitt, G.F., Alimonti, C. (2009), Multiphase Flow Metering: Principles and Applications, Elsevier, Developments of Petroleum Science series, October 2009. ISBN-13: 978-0-444-52991-6, ISBN-10: 0-444-52991-8.

#### *Chapters in Books:*

2. Teodoriu, C., **Falcone, G.** (2014), Bohrtechnik für Tiefbohrung, in Handbuch Tiefe Geothermie, Springer-Verlag Berlin Heidelberg, July 2014, ISBN 978-3-642-54510-8.

3. **Falcone, G.**, Alimonti, C., Hewitt, G.F., Harrison, B. (2004), Multiphase Flow Metering: Current Trends and Future Developments, in Offshore Multiphase Production Operations, SPE Reprint Series No. 58, Vol. 2, Part IV, Dec 2004.

*Editor:*

4. **Falcone, G.**, Mehdizadeh, P. (Editors) (2012), Multiphase Flow Metering, in SPE Reprint Series "Getting up to Speed", February 2012. ISBN 978-1-61399-193-0.

### Patents

United States Patent 7591191, "Multiphase flow meter for high gas volume fraction systems". Inventors: G.F. Hewitt, G. Falcone. Publication Date: 22 September 2009.

International Patent Application PCT/GB2004/002314 relating to "Multiphase Flowmeter". International Publication Number WO2004/106861. Inventors: G.F. Hewitt, G. Falcone (2004).

### Peer and Board Reviewed Journal Articles

*Published and accepted:*

1. Peralta Ramos, E., Breede, K., **Falcone, G.** (2015), Geothermal heat recovery from abandoned mines: a systematic review of projects implemented worldwide and a methodology for screening new projects, *Environ Earth Sci*, DOI: 10.1007/s12665-015-4285-y.
2. Abid, K., Spagnoli, G., Teodoriu, C., **Falcone, G.** (2015), Review of pressure coring systems for offshore gas hydrates research, accepted in February 2015 for publication in *Underwater Technology* in July 2015.
3. Teodoriu, C., Okolieocha, P., **Falcone, G.** (2015), A theoretical comparison of cement slurry mixing energy in field and laboratory conditions, *Environ Earth Sci*, 03/2015, DOI: 10.1007/s12665-015-4229-6.
4. **Falcone, G.**, Harrison, B. (2015), Subsea gas compression increases chance of deepwater development, *Oil & Gas Journal*, Vol. 113, Issue 5, May 4, 2015 (special OTC issue).
5. **Falcone, G.** (2015), Proposal of a consistent framework to integrate geothermal potential classification with energy extraction, *Geoth. Energ. Sci.*, 3, 7-11, 2015.
6. Breede, K., Dzebisashvili, K., **Falcone, G.** (2015), Overcoming challenges in the classification of deep geothermal potential, *Geoth. Energ. Sci.*, 3, 19–39, 2015.
7. Limpasurat, A., Valko, P., **Falcone, G.** (2014), A New Concept of Wellbore Boundary Condition for Modeling Liquid Loading in Gas Wells, *SPE Journal*, November 2014, doi:10.2118/166199-PA
8. Harrison, B., **Falcone, G.** (2014), Carbon Capture and Sequestration vs. Carbon Capture Utilisation and Storage for Enhanced Oil Recovery: A Critical Review of Projects' Screening Criteria, Operational Specifics and Steps to Commercialisation, *Acta Geotechnica*, February 2014 (online 26 Sep 2013), Volume 9, Issue 1, pp. 29-38, DOI:10.1007/s11440-013-0235-6.
9. Breede, K., Dzebisashvili, K., Liu, X., **Falcone, G.** (2013), A Systematic Review of Enhanced (or Engineered) Geothermal Systems: Past, Present and Future, *Geothermal Energy* 2013, 1:4, www.geothermal-energy-journal.com/content/1/1/4.
10. Peralta Ramos, E., **Falcone, G.** (2013), Recovery of the Geothermal Energy Stored in Abandoned Mines, in Clean Energy Systems in the Subsurface: Production, Storage and Conversion, Springer Series in Geomechanics and Geoengineering, Proceedings of the 3rd Sino-German Conference "Underground Storage of CO<sub>2</sub> and Energy", Goslar, Germany, 21-23 May 2013, pp 143-155, DOI 10.1007/978-3-642-37849-2\_12
11. Waltrich, P.; **Falcone, G.**; Barbosa Jr., Jader R. (2013), Axial development of annular, churn and slug flows in a long vertical tube, *International Journal of Multiphase Flow*, v. 57, pp. 38-48, 2013
12. Davani, E., **Falcone, G.**, Teodoriu, C., McCain, B. (2013), HPHT viscosities measurements of mixtures of methane/nitrogen and methane/carbon dioxide, *Journal of Natural Gas Science and Engineering*, Volume 12, May 2013, pp. 43-55, ISSN 1875-5100.
13. Rajnauth, J., Barrufet, M.A., **Falcone, G.** (2013), Potential Industry Applications Using Gas Hydrate Technology, *The West Indian Journal of Engineering*, Vol.35, No.2, January 2013, pp.15-21.
14. Rajnauth, J., Barrufet, M.A., **Falcone, G.** (2012), Hydrate Formation: Considering the Effects of Pressure, Temperature, Composition and Water, *Energy Science and Technology*, Vol.4, No.1, 2012, pp. 60-67.
15. Davani, E., **Falcone, G.**, Teodoriu, C., McCain, B. (2012), Rolling Ball Viscometer Calibration with Gas Over Whole Interest Range of Pressure and Temperature Improves Accuracy of Gas Viscosity Measurement, *Industrial & Engineering Chemistry Research*, 2012, 51(46), 15276-15281.
16. **Falcone, G.** (2012), Nutzung von Niedertemperatur-Geothermie im Zusammenhang mit Kohlenwassersoffentwicklungen (Harnessing the Low-Temperature Geothermal Energy Associated with Hydrocarbon Developments), invited article, *Ingenieurspiegel*, Public Verlagsgesellschaft und Anzeigenagentur mbH, 15 November 2012 issue.

17. Rondon, J., Barrufet, M.A., **Falcone, G.** (2012), A Novel Downhole Sensor to Determine Fluid Viscosity, *Flow Measurement and Instrumentation*, Volume 23, Issue 1, March 2012, pp. 9–18.
18. Hua, G., **Falcone, G.**, Teodoriu, C., Morrison, G. (2012), Comparison of Multiphase Pumping Technologies for Subsea and Downhole Applications, *SPE Oil and Gas Facilities*, Vol.1, No.1, February 2012, pp. 36-46.
19. **Falcone, G.**, Harrison, B. (2011), Forecast expects continued multiphase flowmeter growth, *Oil & Gas Journal*, March 7, 2011, pp. 68-73.
20. Khabibullin, T., **Falcone, G.**, Teodoriu, C., Bello, O.O. (2011), Drilling through Gas Hydrate Sediments: Managing Wellbore Instability Risks, *SPE Drilling & Completion*, Vol. 26, Number 2, June 2011, pp. 287-294.
21. Bello, O., **Falcone, G.**, Teodoriu, C., Udong, I. (2011), Optimizing Two-Phase Oil-Sand Flow through a Horizontal Well, *Oil & Gas Science and Technology – Rev. IFP Energies nouvelles*, DOI: 10.2516/ogst/2010034, April 2011.
22. Alimonti, C., **Falcone, G.**, Bello, O.O. (2010), Two-Phase Flow Characteristics in Multiple Orifice Valves, *Experimental Thermal and Fluid Science*, Vol. 34, Issue 8, November 2010, pp. 1324-1333.
23. Barrufet, M.A., Bacquet, A., **Falcone, G.** (2010), Analysis of the Storage Capacity for CO<sub>2</sub> Sequestration of a Depleted Gas Condensate Reservoir and a Saline Aquifer, *Journal of Canadian Petroleum Technology*, Vol. 49, No. 8, August 2010, pp. 23-31.
24. Zhang, H., **Falcone, G.**, Teodoriu, C. (2010), Modeling Fully-Transient Two-phase Flow in the Near-Wellbore Region During Liquid Loading in Gas Wells, *Journal of Natural Gas Science & Engineering*, Vol. 2, Issues 2-3, July 2010, pp. 122-131.
25. Davani, E., Ling, K., Teodoriu, C., McCain, W.D., **Falcone, G.** (2010), Accurate Gas-Viscosity Correlation for Use at HP/HT Conditions Ensures Better Reserves Estimation, *Journal of Petroleum Technology (JPT)*, April 2010.
26. Limpasurat, A., **Falcone, G.**, Teodoriu, C., Barrufet, M.A., Bello, O. (2011), Artificial Geothermal Energy Potential of Steam-Flooded Heavy Oil Reservoirs, *Int. J. Oil, Gas and Coal Technology*, Vol. 4, No. 1, 2011.
27. Chava, G., **Falcone, G.**, Teodoriu, C. (2010), Plunger Lift Modeling Toward Efficient Liquid Unloading in Gas Wells, *SPE Projects, Facilities & Construction Journal*, March 2010, pp. 38-45.
28. Fernandez, J., **Falcone, G.**, Teodoriu, C. (2010), Design of a High-Pressure Research Flow Loop for the Experimental Investigation of Liquid Loading in Gas Wells, *SPE Projects, Facilities & Construction*, Vol. 5, No. 2, June 2010, pp. 76-88.
29. Park, H.Y., **Falcone, G.**, Teodoriu, C. (2009), Decision matrix for liquid loading in gas wells for cost/benefit analyses of lifting options, *Journal of Natural Gas Science and Engineering*, Volume 1, Issue 3, September 2009, pp. 72-83.
30. Surendra, M., **Falcone, G.**, Teodoriu, C. (2009), Investigation of Swirl Flows Applied to the Oil and Gas Industry, *SPE Projects, Facilities & Construction Journal*, March 2009, pp. 1-6.
31. Teodoriu, C., **Falcone, G.** (2008), Low Cost Completion for Steam Injections Wells: Theoretical and Experimental Results, *Romanian Journal of Petroleum (RJP)*, Vol.15, No.1, January - June 2008.
32. Teodoriu, C., **Falcone, G.** (2009), Comparing completion design in hydrocarbon and geothermal wells: The need to evaluate the integrity of casing connections subject to thermal stresses, *Geothermics* 38, 2009, pp. 238–246.
33. Costantini, A., **Falcone, G.**, Hewitt, G.F., Alimonti, C. (2008), Using Transient Inflow Performance Relationships to Model the Dynamic Interaction Between Reservoir and Wellbore During Pressure Testing, *ASME Journal of Energy Resources Technology*, Vol.130, Iss.4, December 2008, pp. 1-9.
34. **Falcone, G.**, Teodoriu, C., Reinicke, K.M., Bello, O.O. (2008), Multiphase Flow Modelling Based on Experimental Testing: A Comprehensive Overview of Research Facilities Worldwide and the Need for Future Developments, *SPE Projects, Facilities & Construction Journal*, September 2008, pp. 1-10.
35. Al-Darmaki, S., **Falcone, G.**, Hale, C.P., Hewitt, G.F. (2008), Experimental Investigation and Modeling of the Effects of Rising Gas Bubbles in a Closed Pipe, *SPE Journal*, September 2008, pp. 354-365.
36. Teodoriu, C., **Falcone, G.** (2008), Labyrinth Packer Lowers the Costs for Steam Injections Wells: Theoretical and Experimental Results, *Journal of Petroleum Technology (JPT)*, September 2008.
37. Teodoriu, C., **Falcone, G.** (2008), Increasing Geothermal Energy Demand: the Need for Urbanization of the Drilling Industry, *Bulletin of Science, Technology & Society 2008*, Vol. 28, No. 3, June 2008, pp. 227-235.
38. **Falcone, G.**, Harrison, B., Teodoriu, C. (2007), Can We Be More Efficient in Oil and Gas Exploitation? A Review of the Shortcomings of Recovery Factor and the Need for an Open Worldwide Production Database, *Journal of Physical and Natural Sciences*, Vol. 1, Issue 2, 2007.
39. Alimonti, C., **Falcone, G.** (2004), Integration of Multiphase Flow Metering, Artificial Neural Networks and Fuzzy Logic in Field Performance Monitoring, *SPE Production & Facilities*, Feb 2004, pp. 25-32.

40. **Falcone, G.**, Alimonti, C., Hewitt, G.F., Harrison, B. (2002), Multiphase Flow Metering: Current Trends and Future Developments, Distinguished Author Series, *Journal of Petroleum Technology (JPT)*, Apr 2002, pp. 77-84.
41. **Falcone, G.**, Harrison, B. (2001), Model predicts more accurate PI over a field's life, *Oil & Gas Journal*, 19 Mar 2001, pp. 41-45.

*Submitted, pending review:*

42. Waltrich, P., Posada, C., Martinez, J., **Falcone, G.**, Barbosa, J.R. (2015), Liquid Loading in Gas Wells: An Updated Critical Review, submitted to the *Journal of Natural Gas Science & Engineering* in January 2015.
43. Waltrich, P., **Falcone, G.**, Barbosa, J.R. (2015), Liquid Transport During Gas Flow Transients Applied to Liquid Loading in Long Vertical Pipes, submitted to *Experimental Thermal and Fluid Science* in March 2015.

#### **Refereed Conferences (Abstract peer-reviewed, full paper peer-reviewed)**

1. Peralta Ramos, E., Breede, K., **Falcone, G.** (2015), Geothermal heat recovery from abandoned mines: a systematic review of projects implemented worldwide and a methodology for screening new projects, to be presented at the 4<sup>th</sup> Sino-German Energy Conference, 29-31 May 2015, Chengdu, PR China.
2. **Falcone, G.**, Beardsmore, G. (2015), Including Geothermal Energy within a Consistent Framework Classification for Renewable and Non-Renewable Energy Resources, World Geothermal Congress 2015, Melbourne, Australia, 19-25 April 2015.
3. Liu, X., Limpasurat, A., **Falcone, G.**, Teodoriu, C. (2014), Investigation of Back Pressure Effects on Transient Gas Flow through Porous Media via Laboratory Experiments and Numerical Simulation, Offshore and Arctic Engineering Conference OMAE 2014, San Francisco, California, June 8-13, 2014. DOI:10.1115/OMAE2014-24648
4. Ramos, E.P., **Falcone, G.** (2013), Recovery of the Geothermal Energy Stored in Abandoned Mines, 3<sup>rd</sup> Sino-German Conference, Goslar, Germany, 21-26 May 2013.
5. Harrison, B., **Falcone, G.** (2013), Carbon Capture and Sequestration vs. Carbon Capture Utilisation and Storage for Enhanced Oil Recovery: A Critical Review of Projects' Screening Criteria, Operational Specifics and Steps to Commercialisation, 3<sup>rd</sup> Sino-German Conference, Goslar, Germany, 21-26 May 2013.
6. Solomon, F., **Falcone, G.**, Teodoriu C. (2008), The Need to Understand the Dynamic Interaction Between Wellbore and Reservoir in Liquid Loaded Gas Wells, 27<sup>th</sup> International Conference on Offshore Mechanics and Arctic Engineering, Estoril, Portugal, 15-20 June 2008.
7. Teodoriu C., **Falcone, G.**, Afolabi, A. (2008), Investigation of Drilling Problems in Gas Hydrate Formations, 27<sup>th</sup> International Conference on Offshore Mechanics and Arctic Engineering, Estoril, Portugal, 15-20 June 2008.
8. Teodoriu, C., **Falcone, G.**, Espinel, A. (2007), Letting Off Steam and Getting Into Hot Water – Harnessing the Geothermal Energy Potential of Heavy Oil Reservoirs, 20<sup>th</sup> World Energy Congress - Rome 2007, Rome, Italy, 11-15 Nov 2007.
9. Costantini, A., **Falcone, G.**, Hewitt, G.F., Alimonti, C. (2007), Using Transient Inflow Performance Relationships to Model the Dynamic Interaction Between Reservoir and Wellbore During Pressure Testing, 26<sup>th</sup> International Conference on Offshore Mechanics and Arctic Engineering, San Diego, California, 10-15 Jun 2007.
10. **Falcone, G.**, Alimonti, C. (2007), Challenges of Multiphase Flow Metering: Today and Beyond, 26<sup>th</sup> International Conference on Offshore Mechanics and Arctic Engineering, San Diego, California, 10-15 Jun 2007.
11. Bello, O.O., **Falcone, G.**, Teodoriu, C. (2007), Experimental Validation of Multiphase Flow Models and Testing of Multiphase Flow Meters: a Critical Review of Flow Loops Worldwide, Multiphase Flow 2007, 4<sup>th</sup> International Conference on Computational and Experimental Methods in Multiphase and Complex Flow, Bologna, Italy, 12-14 Jun 2007 (ISSN 1743-3533, ISBN: 978-184564-079-8).
12. Alimonti, C., **Falcone, G.** (2004), Improving Multiphase Flow Metering Performance Using Artificial Intelligence Algorithms, Proceedings of the 2<sup>nd</sup> International Symposium on Two-Phase Modelling and Experimentation, Pisa, Italy, 22-24 Sep 2004. v. II-811 (ISBN: 88-467-1075-4).
13. Alimonti, C., Bilardo, U., **Falcone, G.** (2002), Experimental characterisation of gas-liquid flows through an angle valve, Proceedings of the 8<sup>th</sup> International Conference Multiphase Flow in Industrial Plants, ANIMP, Alba, Cuneo, Italy, 18-20 Sep 2002.

### **Other Conferences (Abstract peer-reviewed, full paper required, but not peer-reviewed)**

1. Radido Okech, R., **Falcone, G.**, Teodoriu, C. (2014), Unconventional Well Completion Design for Deep Geothermal Wells, to be presented at the 2015 SPE Latin American and Caribbean Petroleum Engineering Conference, Quito, Ecuador, 18-20 November 2015.
2. Harrison, B., **Falcone, G.** (2015), Regrading Proven Reserves with PRMS, to be presented at the 2015 SPE Latin American and Caribbean Petroleum Engineering Conference, Quito, Ecuador, 18-20 November 2015.
3. **Falcone, G.**, Pawellek, C., Teodoriu, C. (2015), The First Master in Geothermal Engineering Offered by a Petroleum Engineering School: Curriculum Challenges and Opportunities, to be presented at the 2015 SPE Annual Technical Conference and Exhibition, Houston, U.S.A., 28–30 September 2015.
4. Teodoriu, C., **Falcone, G.**, Alruz Barcelos J.G. (2015), The Artificial Geyser Concept – New Insights, to be presented at the 2015 Stanford Geothermal Workshop, 26-28 January 2015, Stanford, California.
5. Alimonti, C., **Falcone, G.**, Liu, X. (2014), Potential for Harnessing the Heat from a Mature High-Pressure-High-Temperature Oil Field in Italy, 2014 SPE Annual Technical Conference and Exhibition, Amsterdam, The Netherlands, 27-29 October 2014.
6. **Falcone, G.** (2014), EGS – Sistemi Geotermici Potenzati, Conferenza Sistemi Geotermici Non Convenzionali, Rome, Italy, 20 June 2014.
7. **Falcone, G.** (2014), Riserve senza risorse, Conferenza Sistemi Geotermici Non Convenzionali, Rome, Italy, 20 June 2014.
8. Liu, X., Limpasurat, A., **Falcone, G.**, Teodoriu, C. (2014), Investigation of Back Pressure Effects on Transient Gas Flow Through Porous Media via Laboratory Experiments and Numerical Simulation, paper OMAE2014-24648, ASME 2014 33<sup>rd</sup> International Conference on Ocean, Offshore and Arctic Engineering OMAE2014, June 8-13, 2014, San Francisco, California, USA.
9. Mesch, A., **Falcone, G.** (2014), Current vs. Perceived Obstacles to the Geothermal Development in Germany, DGMK/ÖGEW-Frühjahrstagung, Fachbereich Aufsuchung und Gewinnung, Celle, Germany, 24-25 April 2014.
10. Liu, X., **Falcone, G.** (2014), Integrated Wellbore/Reservoir Transient Modelling of Liquid Loading in Gas Wells, DGMK/ÖGEW-Frühjahrstagung, Fachbereich Aufsuchung und Gewinnung, Celle, Germany, 24-25 April 2014.
11. Cavalcanti de Sousa, P., **Falcone, G.**, Barrufet, M. (2014), Upward Gas-Liquid Flow in Concentric and Eccentric Annular Spaces, SPE 169303, SPE Latin American and Caribbean Petroleum Engineering Conference held in Maracaibo, Venezuela, 21–23 May 2014.
12. Heller, K., Teodoriu, C., **Falcone, G.** (2014), Harnessing Deep Geothermal Heat Using a New Concept Based on the Geyser Principle, Stanford Geothermal Workshop, Stanford, California, 24-26 February 2014.
13. Alves, M.V.C., Barbosa, J. R., Waltrich, P.J., **Falcone, G.**, (2013), Modeling Transient Churn-Annular Flows in a Long Vertical Pipe, Proceedings of the ASME 2013 International Mechanical Engineering Conference & Exposition, IMECE 2013, San Diego, 15-21 November 2013.
14. **Falcone, G.**, Teodoriu, C., Barrufet, M.A. (2013), Petroleum Engineering Curricula: Is it Better to Enhance Geographical Diversity or to Standardize International Education?, SPE 166416, 2013 SPE Annual Technical Conference and Exhibition, New Orleans, Louisiana, 30 September - 2 October 2013.
15. Limpasurat, A., Valko, P., **Falcone, G.** (2013), A New Concept of Wellbore Boundary Condition for Modeling Liquid Loading in Gas Wells, SPE 166199, 2013 SPE Annual Technical Conference and Exhibition, New Orleans, Louisiana, 30 September - 2 October 2013.
16. Harrison, B., **Falcone, G.** (2013), Deciding Whether to Fund Either CCS or CCUS Offshore Projects: Are We Comparing Apples and Pears in the North Sea?, SPE 166388, 2013 SPE Annual Technical Conference and Exhibition, New Orleans, Louisiana, 30 September - 2 October 2013.
17. **Falcone, G.**, Barbosa, J.R. (2013), State-of-the-art Review of Liquid Loading in Gas Wells, DGMK/ÖGEW-Frühjahrstagung, Fachbereich Aufsuchung und Gewinnung, Celle, Germany, 18-19. April 2013.
18. Liu, X., **Falcone, G.**, Alimonti, C. (2013), Harnessing the Heat from a Mature Oil Field, European Geothermal Congress 2013, Pisa, Italy, 3-7 June 2013.
19. **Falcone, G.**, Alimonti, C., Gnoni, A., Harrison, B. (2013), Classification and Reporting Requirements for Geothermal Resources, European Geothermal Congress 2013, Pisa, Italy, 3-7 June 2013.
20. Bello, O., Teodoriu, C., **Falcone, G.** (2013), Performance Assessment of Drilling Rigs Used in Geothermal Applications, European Geothermal Congress 2013, Pisa, Italy, 3-7 June 2013.
21. Waltrich, P.J., **Falcone, G.**, Barbosa, J. R. (2012), Axial Development of Churn and Slug Flows in a Long Vertical Tube, 3<sup>rd</sup> EBCEM (3<sup>o</sup> Encontro Brasileiro sobre Ebulição, Condensação e Escoamentos Multifásicos), Curitiba, Brazil, 7 - 8 May 2012.

22. Alves, M.V.C., **Falcone, G.**, Barbosa, J. R. (2012), Modeling the Transient Behavior of Churn-Annular Flow in a Vertical Pipe, 3<sup>rd</sup> EBECEM (3<sup>o</sup> Encontro Brasileiro sobre Ebulição, Condensação e Escoamentos Multifásicos), Curitiba, Brazil, 7 - 8 May 2012.
23. **Falcone, G.**, Teodoriu, C. (2012), Recovering Waste Heat from Hydrocarbon Developments to Improve Energy Efficiency Towards a More Sustainable Environment, DGMK conference "Environmental Sustainability in the E&P industry", Celle, Germany, 19-20 April 2012.
24. Valbuena, E., Barrufet, M.A., **Falcone, G.** (2012), Analytical Estimation of CO<sub>2</sub> Storage Capacity in Depleted Oil and Gas Reservoirs Based on Thermodynamic State Functions, SPE-153307, SPE Latin America and Caribbean Petroleum Engineering Conference, Mexico City, Mexico, 16-18 April 2012.
25. De Witt, G., **Falcone, G.**, Teodoriu, C. (2011), Worldwide Classification and Reporting Requirements for Geothermal Resources, SPE-146435, 2011 CSUG/SPE Unconventional Resources Conference, Calgary, Alberta, Canada, 15 - 17 November 2011.
26. Waltrich, P., **Falcone, G.**, Barbosa, J.R. (2011), Performance of Vertical Transient Two-Phase Flow Models Applied to Liquid Loading in Gas Wells, SPE-147128, 2011 SPE Annual Technical Conference and Exhibition, Denver, Colorado, 30 October - 2 November 2011.
27. Hua, G., **Falcone, G.**, Teodoriu, C., Morrison, G. (2011), Comparison of Multiphase Pumping Technologies for Subsea and Downhole Applications, SPE-146784, 2011 SPE Annual Technical Conference and Exhibition, Denver, Colorado, 30 October - 2 November 2011.
28. Thebo, A.R., Bello, O.O., **Falcone, G.** (2011), A Generic Model for Optimizing the Selection of Artificial Lift Methods for Liquid Loaded Gas Wells, SPE-146606, 2011 SPE Annual Technical Conference and Exhibition, Denver, Colorado, 30 October - 2 November 2011.
29. Teodoriu, C., Barrufet, M.A., Epps, M.L., **Falcone, G.** (2011), Real-Time Long Distance Teaching: an extensive evaluation of the techniques and student response of 6 years of non-stop process, SPE-146050, 2011 SPE Annual Technical Conference and Exhibition, Denver, Colorado, 30 October - 2 November 2011.
30. De Witt, G., **Falcone, G.**, Teodoriu, C. (2011), Standardizing the Definitions of Geothermal Resources, DGMK conference "Sustainable Risk Management - an operational and economic success in the E & P industry", Celle, Germany, 11-12 April 2011.
31. Bello, O., **Falcone, G.**, Xu, J., Scott, S., Harrod, J. (2011), Evaluation of Liquid Loading in the Pinedale Field: Integration of Smart Plunger Data and Mechanistic Modeling, SPE 141250, SPE Production and Operations Symposium, Oklahoma City, Oklahoma, 27-29 March 2011.
32. Bello, O., **Falcone, G.**, Xu, J., Scott, S. (2011), Performance Evaluation of a Plunger-Assisted Intermittent Gas Lift System, SPE 141251, SPE Production and Operations Symposium, Oklahoma City, Oklahoma, 27-29 March 2011.
33. Fichter, C., **Falcone, G.**, Reinicke, K.M., Teodoriu, C. (2011), Probabilistic Analysis of Failure Risk in the Primary Geothermal Cycle, 36<sup>th</sup> Stanford Geothermal Workshop, Stanford, California, January 31 - February 2, 2011.
34. Bello, O., **Falcone, G.**, Teodoriu, C., Udong, I. (2010), Hydraulic Analysis of Gas-Oil-Sand Flow in Horizontal Wells, SPE 136874, SPE Latin American & Caribbean Petroleum Engineering Conference, Lima, Peru, 1-3 December 2010.
35. Zhang, H., **Falcone, G.**, Teodoriu, C. (2010), Relative Permeability Hysteresis Effects in the Near-Wellbore Region During Liquid Loading in Gas Wells, SPE 139062, SPE Latin American & Caribbean Petroleum Engineering Conference, Lima, Peru, 1-3 December 2010.
36. Limpasurat, A., **Falcone, G.**, Teodoriu, C., Barrufet, M.A. (2010), Unconventional Heavy-Oil Exploitation for Waste Energy Recovery, SPE 139054, SPE Latin American & Caribbean Petroleum Engineering Conference, Lima, Peru, 1-3 December 2010.
37. Teodoriu, C., Barrufet, M.A., Epps, M.L., **Falcone, G.**, Reinicke, K.M. (2010), Real-Time Long-Distance Teaching: The Texas A&M DL Experience, SPE 134440, 2010 SPE Annual Technical Conference and Exhibition, Florence, Italy, 19-22 September 2010.
38. Rondon, J., Barrufet, M.A., **Falcone, G.** (2010), An Analytical Model To Determine the Rheological Properties of Well Fluids Using a Novel Downhole Sensor, SPE 135513, 2010 SPE Annual Technical Conference and Exhibition, Florence, Italy, 19-22 September 2010.
39. Rajnauth, J., Barrufet, M.A., **Falcone, G.** (2010), Potential Industry Applications Using Gas Hydrate Technology, SPE 133466, SPE Trinidad and Tobago Energy Resources Conference, Port of Spain, Trinidad, 27-30 June 2010.
40. Khabibullin, T., **Falcone, G.**, Teodoriu, C., Bello, O.O. (2010), Drilling through Gas Hydrate Sediments: Managing Wellbore Instability Risks, 2010 EAGE/SPE EUROPEC, 14-17 June 2010, Barcelona, Spain.
41. Rondon, J., Barrufet, M.A., **Falcone, G.** (2010), Calibration and Analysis of a Novel Downhole Sensor to Determine Fluid Viscosities, 2010 EAGE/SPE EUROPEC, 14-17 June 2010, Barcelona, Spain.

42. Rajnauth, J.J., Barrufet, M.A., **Falcone, G.** (2010), Hydrate Formation: Considering the Effects of Pressure, Temperature, Composition and Water, 2010 EAGE/SPE EUROPEC, 14-17 June 2010, Barcelona, Spain.
43. Ling, K., Teodoriu, C., Davani, E., **Falcone, G.** (2009), Measurement of Gas Viscosity at High Pressures and High Temperatures, International Petroleum Technology Conference, Doha, Qatar, 7–9 December 2009.
44. Teodoriu, C., Fichter, C., **Falcone, G.** (2009), Drilling deep geothermal reservoirs: the future of oil and gas business, to be presented at The Geothermal Congress 2009 (Der Geothermiekongress 2009), Bochum, Germany, 17-19 November 2009.
45. Davani, E., Ling, K., Teodoriu, C., McCain, W.D., **Falcone, G.** (2009), More Accurate Gas Viscosity Correlation for Use at HP/HT Conditions Ensures Better Reserves Estimation, 2009 SPE Annual Technical Conference and Exhibition, 4–7 October 2009, New Orleans, Louisiana.
46. Teodoriu, C., Reinicke, K.M., **Falcone, G.** (2009), Real-Time, Long-Distance Teaching: Overview of 2 Years of Tele-Teaching Between Texas and Germany, 2009 SPE Annual Technical Conference and Exhibition, 4–7 October 2009, New Orleans, Louisiana.
47. **Falcone, G.**, Chava, G., Teodoriu, C. (2009), Plunger Lift Modeling Toward Efficient Liquid Unloading in Gas Wells, 2009 SPE Annual Technical Conference and Exhibition, 4–7 October 2009, New Orleans, Louisiana.
48. Barrufet, M.A., Bacquet, A., **Falcone, G.** (2009), Analysis of the Storage Capacity for CO<sub>2</sub> Sequestration of a Depleted Gas Condensate Reservoir and a Saline Aquifer, Canadian International Petroleum Conference (CIPC) 2009, Calgary, Alberta, Canada, 16-18 June 2009.
49. Fernandez, J., **Falcone, G.**, Teodoriu, C. (2009), Design of a High-Pressure Research Flow Loop for the Experimental Investigation of Liquid Loading in Gas Wells, SPE-122786, 2009 SPE Latin American & Caribbean Petroleum Engineering Conference, 31-May-09 to 03-Jun-09, Cartagena, Colombia.
50. Zhang, H., **Falcone, G.**, Valko, P., Teodoriu, C. (2009), Numerical Modeling of Fully-Transient Flow in the Near-Wellbore Region During Liquid Loading in Gas Wells, SPE-122785, 2009 SPE Latin American & Caribbean Petroleum Engineering Conference, 31-May-09 to 03-Jun-09, Cartagena, Colombia.
51. Davani, E., Ling, K., Teodoriu, C., McCain, W.D., **Falcone, G.** (2009), Inaccurate Gas Viscosity at HP/HT Conditions and its Effect on Unconventional Gas Reserves Estimation, SPE-122827, 2009 SPE Latin American & Caribbean Petroleum Engineering Conference, 31-May-09 to 03-Jun-09, Cartagena, Colombia.
52. Teodoriu C., **Falcone, G.** (2009), Drilling Beyond Oil and Gas: a Discussion About How Technology Will Change to Enhance Drilling in Urban Areas, DGMK conference “New Ways for Oil and Gas – a Question of Technology”, Celle, Germany, 27-28 April 2009.
53. Chava, G., **Falcone, G.**, Teodoriu, C. (2009), Use of Integrated Electronics and Sensors to Improve Plunger Lift Modelling Towards Efficient Liquid Unloading in Gas Wells, DGMK conference “New Ways for Oil and Gas – a Question of Technology”, Celle, Germany, 27-28 April 2009.
54. Chava, G., **Falcone, G.**, Teodoriu, C. (2008), Development of a New Plunger-Lift Model Using Smart Plunger Data, SPE 115934, 2008 SPE Annual Technical Conference and Exhibition, Denver, Colorado, U.S.A., 21-24 September 2008.
55. Surendra, M., **Falcone, G.**, Teodoriu, C. (2008), Investigation of Swirl Flows Applied to the Oil and Gas Industry, SPE 115938, 2008 SPE Annual Technical Conference and Exhibition, Denver, Colorado, U.S.A., 21-24 September 2008.
56. Solomon, F., **Falcone, G.**, Teodoriu, C. (2008), Critical Review of Existing Solutions to Predict and Model Liquid Loading in Gas Wells, SPE 115933, 2008 SPE Annual Technical Conference and Exhibition, Denver, Colorado, U.S.A., 21-24 September 2008.
57. **Falcone, G.**, Teodoriu C. (2008), Oil and Gas expertise for Geothermal Exploitation: the Need for Technology Transfer, SPE 113852, EAGE/SPE EUROPEC Conference, Rome, 9-12 June 2008.
58. Teodoriu C., **Falcone, G.** (2008), Labyrinth Packer Lowers the Costs for Steam Injections Wells: Theoretical and Experimental Results, SPE 110454, 2008 SPE Improved Oil Recovery Symposium, Tulsa, Oklahoma, 21-23 April 2008.
59. Teodoriu C., **Falcone, G.** (2008), Fatigue Life Prediction of Buttress Casing Connection Exposed to Large Temperature Variations, 33<sup>rd</sup> Stanford Workshop on Geothermal Reservoir Engineering, Stanford University, California, 28-30 January 2008.
60. Teodoriu C., **Falcone, G.** (2008), Comparison of Well Completions used in Oil/Gas Wells and Geothermal Wells: a New Approach to Technology Transfer, 33<sup>rd</sup> Stanford Workshop on Geothermal Reservoir Engineering, Stanford University, California, 28-30 January 2008.
61. **Falcone, G.**, Teodoriu, C., Reinicke, K.M., Bello, O.O. (2007), Multiphase Flow Modelling Based on Experimental Testing: A Comprehensive Overview of Research Facilities Worldwide and the Need for Future Developments, SPE 110116, 2007 SPE Annual Technical Conference and Exhibition, Anaheim, California, U.S.A., 11–14 November 2007.

62. Teodoriu C., **Falcone, G.** (2007), Low cost completion for steam injections wells: theoretical and experimental results, SPE Romanian Conference "150 Years of the Romanian Petroleum Industry: Tradition and Challenges", Bucharest, Romania, 14-17 October 2007.
63. Teodoriu, C., **Falcone, G.** (2007), Urbanization of the drilling industry: the next generation of drilling facilities, International Conference for Sustainable Urbanism, College Station, Texas, 1-3 April 2007.
64. Al-Darmaki, S., **Falcone, G.**, Hale, C.P., Hewitt, G.F. (2006), Experimental Investigation and Modeling of the Effects of Rising Gas Bubbles in a Closed Pipe, SPE 103129, SPE Annual Technical Conference and Exhibition held in San Antonio, Texas, 24-27 Sep 2006.
65. **Falcone, G.**, Alimonti, C. (2006), Critical Review of Wet Gas Definitions, 24th North Sea Flow Measurement Workshop, St. Andrews, Scotland, 24-27 October 2006.
66. Ali, A.M., **Falcone, G.**, Hewitt, G.F., Bozorgzadeh, M., Gringarten, A.C. (2005), Experimental Investigation of Wellbore Phase Redistribution Effect on Pressure Transient Data, SPE 96587, SPE Annual Technical Conference and Exhibition, Dallas, Texas, 9-12 Oct 2005.
67. **Falcone, G.**, Alimonti, C., Hewitt, G.F., Harrison, B. (2005), Multiphase flow metering: 4 years on, 23<sup>rd</sup> North Sea Flow Measurement Workshop, Tonsberg, Norway, 18-21 Oct 2005.
68. **Falcone, G.**, Gosselin, O., Maire, F., Marraud, J., Zhakupov, M. (2004), PetroElastic Modelling as a Key Element in 4D History Matching – A Field Example, SPE 90466, SPE Annual Technical Conference and Exhibition held in Houston, Texas, 27-29 Sep 2004.
69. **Falcone, G.**, Maire, F., Gosselin, O., Brechet, E., Marraud, J., Caie, D. (2004), Impact of Petro-Elastic Modelling and Cut Offs on the Integration of Quantitative 4D Seismic into Reservoir Modelling, EAGE 66<sup>th</sup> Conference and Exhibition, Paris, France, 7-11 Jun 2004.
70. **Falcone, G.**, Hewitt, G.F., Lao, L., Richardson, S.M. (2003), ANUMET: A Novel Wet Gas Flowmeter, SPE 84504, SPE Annual Technical Conference and Exhibition, Denver, Colorado, 5-8 Oct 2003.
71. Alimonti, C., **Falcone, G.** (2002), Knowledge Discovery in Databases and Multiphase Flow Metering: the integration of statistics, data mining, neural networks, fuzzy logic and ad hoc flow measurements towards well monitoring and diagnosis, SPE 77407, SPE Annual Technical Conference and Exhibition, San Antonio, Texas, 24-27 Sep 2002.
72. **Falcone, G.**, Alimonti, C., Hewitt, G.F., Harrison, B. (2001), Multiphase Flow Metering: Current Trends and Future Developments, SPE 71474, SPE Annual Technical Conference and Exhibition, New Orleans, Louisiana, 30 September - 3 Oct 2001.
73. Alimonti, C., Bilardo, U., **Falcone, G.** (1999), Checking the Ashford-Pierce model through a field data base, Offshore Mediterranean Conference, Ravenna, Italy, 19-21 Mar 1999, pp.1245-1248.

#### **Conference Abstracts (Abstract peer-reviewed, full paper not required) and Posters**

1. Radido Okech, R., **Falcone, G.**, Teodoriu, C. (2014), Unconventional Well Completion Design for Deep Geothermal Wells, Celle Drilling 2014, 15-16 September 2014.
2. **Falcone, G.**, Barbosa, J.R. Jr. (2014), Experimental and Theoretical Investigation of Transient Two-Phase Flow Phenomena Associated to Liquid Loading in Gas Wells, The Geoff Hewitt Celebration Conference, 23 – 25 July 2014, Imperial College, London.
3. **Falcone, G.** (2014), Lessons learnt from EGS projects worldwide, GeoTHERM expo & congress, Offenburg, 20-21 Feb 2014.
4. Mesch, A., **Falcone, G.** (2013), Current vs. perceived obstacles to geothermal development in Germany, 6<sup>th</sup> Niedersächsische Energietage, Goslar, Germany, 16-17 October 2013.
5. Liu, X., **Falcone, G.**, Alimonti, C. (2013), Harnessing the Heat from a Mature HPHT Oil Field in Italy, 6<sup>th</sup> Niedersächsische Energietage, Goslar, Germany, 16-17 October 2013.
6. Mesch, A., **Falcone, G.** (2013), Investigation on the obstacles to geothermal activities implementation in Germany, poster presented at Der Geothermiekongress 2013, Essen, Germany, 12-14 November 2013.
7. Liu, X., Breede, K., Dzebisashvili, K., **Falcone, G.** (2013), Lessons Learnt from Enhanced Geothermal Systems Worldwide, poster presented at the ICEGS-2<sup>nd</sup> International Conference on Enhanced Geothermal Systems, Potsdam, Germany, 27 May 2013.
8. Dzebisashvili, K., Breede, K., Liu, X., **Falcone, G.** (2013), Conventional vs. Unconventional Enhanced (or Engineered) Geothermal Systems, poster presented at the DGMK/ÖGEW-Frühjahrstagung, Fachbereich Aufsuchung und Gewinnung, Celle, Germany, 18-19. April 2013.
9. Teodoriu, C., **Falcone, G.** (2013), Potential for offshore geothermal developments using deep gas wells, poster presented at the DGMK/ÖGEW-Frühjahrstagung, Fachbereich Aufsuchung und Gewinnung, Celle, Germany, 18-19. April 2013.
10. **Falcone, G.** (2013), Classification and Reporting Requirements for Geothermal Resources and Reserves, GeoTHERM expo & congress, Offenburg, 28 Feb – 1 Mar 2013.

11. Valbuena, E., Barrufet, M.A., **Falcone, G.**, Ehlig-Economides, C. (2012), A Novel Analytical Method to Estimate the Carbon Capture Potential of Depleted Oil and Gas Fields, Poster P068, 74<sup>th</sup> EAGE/SPE EUROPEC Conference & Exhibition, Copenhagen, Denmark, 4 - 7 June 2012.
12. **Falcone, G.**, Teodoriu, C., Limpasurat, A., Barrufet, M.A (2012), Roadmap to Low-Temperature Waste Heat Recovery from Hydrocarbon Developments, poster, GeoTHERM Expo & Congress, Offenburg, Germany, 1-2 March 2012.
13. Alimonti, C., **Falcone, G.**, Bello, O.O. (2009), Two-Phase Pressure Drop in Multiple Orifice Valves, Multiphase Measurement Roundtable, Houston, Texas, 30 April 2009.
14. **Falcone, G.**, Jafarpour, B., Barrufet, M.A. (2008), An Integrated IGCC-CSS Design Course for Graduate Students in Petroleum Engineering, Virtual Conference on Climate Change and CO<sub>2</sub> Storage, 3 December 2008, natureprecedings, DOI:10.1038/npre.2008.2627.1
15. Teodoriu, C., **Falcone, G.**, Reinicke, K.M, Popa, A. (2008), Tele-teaching: between High-Tech and Low-Cost resources, 4<sup>th</sup> Teaching with Technology Conference, College Station, Texas, 13 February 2008.
16. **Falcone, G.** (2007), Multiphase Flow Metering, Recovery Factor and the Need for an Open Worldwide Production Database, MUR-South America, Rio de Janeiro, Brazil, 12-14 March 2007.
17. Teodoriu, C., **Falcone, G.** (2007), How Real Time Monitoring Technology Will Change the Future of Laboratory Classes, 3<sup>rd</sup> Teaching with Technology Conference, College Station, Texas, 14 February 2007.

### **Invited Speaker, Workshop Presentations and Main Presentations to Industry Boards**

1. **Falcone, G.** (2015), "Status Update on the Development of Geothermal Specifications for the UNFC-2009"(title TBC), 6<sup>th</sup> Session of the Expert Group on Resource Classification, United Nations Economic Commission for Europe, Geneva, Switzerland, 29 April-1 May 2015.
2. **Falcone, G.** (2015), Convenor of the IGA/ESMAP workshop on a globally consistent classification system for geothermal energy resources, to be hosted by the World Bank, Washington DC, USA, 4-5 March 2015.
3. **Falcone, G.**, Convenor of the IGA/ESMAP/IRENA workshop on a globally consistent classification system for geothermal energy resources, 8-9 December 2014, Bonn, Germany.
4. **Falcone, G.** (2014), Application of UNFC-2009 to Geothermal Energy, UNECE Workshop on UNFC-2009 Classification for Renewable Energies – Opportunities and Challenges, 17 - 18 November 2014, Geneva.
5. **Falcone, G.** (2014), Classification of Geothermal Energy Resources: Applicability of UNFC-2009, Summit Forum of Science and Technology Innovations Leading the Development of Geothermal Industry in China, 12-16 May 2014 (*oral presentation delivered by Yang Hua*).
6. **Falcone, G.** (2014), "Case Study to Apply UNFC-2009 to Geothermal Resources",5<sup>th</sup> Session of the Expert Group on Resource Classification, United Nations Economic Commission for Europe, Geneva, Switzerland, 29 April-2 May 2014.
7. **Falcone, G.** (2014), "How UNFC-2009 works", UNECE Workshop on Application of UNFC to Renewable Energy hosted by the World Bank, Washington DC, USA, 24 - 25 March 2014.
8. **Falcone, G.** (2014), "Geothermal-Case Study", UNECE Workshop on Application of UNFC to Renewable Energy hosted by the World Bank, Washington DC, USA, 24 - 25 March 2014.
9. **Falcone, G.** (2014), "Liquid Loading in Gas Wells: Mechanisms, Prediction & Reservoir Response", Invited Lecturer, SPE German Section, Hannover, 20 March 2014.
10. **Falcone, G.** (2013), "Geothermal Energy - Techniques, Potential and Challenges", Invited Speaker, Rotary Club – Clausthal-Zellerfeld section, 3 December 2013.
11. **Falcone, G.** (2013), "Introducing a Framework to Estimate and Classify Renewable Energy Resources", IGA Workshop: Developing Best Practice for Geothermal Exploration and Resource / Reserve Classification, Essen, Germany, 14 November 2013.
12. **Falcone, G.** (2013), "Deep Geothermal Energy: Dispelling Myths and Meeting Challenges", Invited Speaker, ETH Zürich, Switzerland, 6 September 2013.
13. **Falcone, G.** (2013), "Introducing a Framework to Estimate and Classify Renewable Energy Resources", Sustainable Mining and the United Nations Framework Classification Challenges and Opportunities in India, organized by the Government of India's Ministry of Mines and Ministry of Coal in collaboration with United Nations Economic Commission for Europe (UNECE), the World Bank and the Federation of Indian Mineral Industries (FIMI), 29-30 October 2013.

14. **Falcone, G.** (2013), "Geothermal Engineering: Fundamentals and Synergies with Petroleum Engineering", Society of Petroleum Engineers Swiss Section, Geneva, Switzerland, on 25 April 2013.
15. **Falcone, G.** (2013), "Status of Geothermal Resource Classification and Key Stakeholders", 4<sup>th</sup> Session of the Expert Group on Resource Classification, United Nations Economic Commission for Europe, Geneva, Switzerland, 24-26 April 2013.
16. **Falcone, G.** (2012), "Was ist die Vision der Tiefengeothermie?", Drilling Simulator, Celle, Germany, 13 December 2012.
17. **Falcone, G.** (2012), "Worldwide Classification and Reporting Requirements for Geothermal Resources", 3<sup>rd</sup> Session of the Expert Group on Resource Classification, United Nations Economic Commission for Europe, Geneva, Switzerland, 2-4 May 2012.
18. **Falcone, G.** (2012), "Educational and Research Challenges of the New Geothermal Chair at TU Clausthal", gebo Research Association meeting, Celle, Germany, 16 March 2012.
19. **Falcone, G.** (2010), Standardising the Definitions of Geothermal Resources, Invited Speaker, Clausthal University of Technology, Clausthal, Germany, 10 May 2010.
20. **Falcone, G.** (2009), JIP on Liquid Loading in the Operation of Gas Fields: Mechanisms, Prediction and Reservoir Response, Executive Summary at the 1<sup>st</sup> sponsors meeting, College Station, Texas, 18 November 2009.
21. **Falcone, G.** (2009) Oil & Gas Expertise for Geothermal Exploitation: the Need for Technology Transfer, Invited Speaker, Graduate Seminar, Clausthal University of Technology, Clausthal, Germany, 23 July 2009.
22. **Falcone, G.** (2009), Aspects of Multidisciplinary Research to Improve Energy Efficiency, Invited Speaker, Imperial College, London, UK, 12 June 2009.
23. **Falcone, G.** (2009), What has the Multiphase Flow Metering community achieved to date? Learning from our past mistakes and reaching out to the industry, Invited Keynote Speaker, Multiphase Measurement Roundtable, Houston, Texas, 30 April 2009.
24. **Falcone, G.** (2009), Liquid Loading in the Operation of Gas Fields: Mechanisms, Prediction and Reservoir Response, Invited Speaker, Graduate Seminar Series, The University of Tulsa, Petroleum Engineering Department, 10 April 2009.
25. **Falcone, G.** (2008), Gas Well Unloading Research at Texas A&M Current Status & Look Ahead, Executive Summary presented at the One-Day Meeting with the Industry Members of the Crisman Institute, College Station, Texas, 5 May 2008.
26. **Falcone, G.** (2008), Integrating the Measurement to Provide Flow Rates, Invited Instructor, Tutorial Session at the 8th Annual Multiphase Measurement Roundtable, Galveston, Texas, 30 April 2008.
27. **Falcone, G.** (2007), Exploiting Geothermal Energy Beneath our Cities: the Need to Urbanise the Drilling Industry, Invited Speaker, Sustainable Energy Conference, École Polytechnique Fédérale de Lausanne, Switzerland, 3 September 2007.
28. **Falcone, G.** (2007), The Challenges of Multiphase Flow Metering', Graduate Seminar, Dept. of Petroleum Engineering, TU Delft, The Netherlands, 12 July 2007.
29. Teodoriu, C., **Falcone, G.** (2007), Urbanization of the drilling industry: the next generation of drilling facilities, J.L. "Corky" Frank '58 Graduate Seminar Series, Texas A&M University, 10 Apr 2007.
30. **Falcone, G.** (2007), Seafloor Metering: the Need for Dedicated Research and Test Facilities, presented as Chairperson of the Discussion Session on Seafloor Metering, RPSEA Seafloor Technologies Forum, College Station, Texas, 9 March 2007.
31. Teodoriu, C., **Falcone, G.** (2007), The Future of Laboratory Classes: Virtual and Remote Controlled Experiments Using Real-Time Monitoring and Web-Integrated Approaches, J.L. "Corky" Frank '58 Graduate Seminar Series, College Station, Texas A&M University, 13 Feb 2007.
32. **Falcone, G.** (2006), Analyzing Pressure and Temperature Data from Smart Plungers to Optimize Lift Cycles, presentation given at the Technology Transfer Meeting with the Industry Members of the Crisman Institute, College Station, Texas, 7 Nov 2006.
33. **Falcone, G.** (2006), Design & Construction of a Dedicated Facility for the Experimental Study & Modelling of Liquid Loading in Gas Wells, presentation given at the Technology Transfer Meeting with the Industry Members of the Crisman Institute, College Station, Texas, 7 Nov 2006.
34. **Falcone, G.** (2006), Liquid Loading in the Operation of Gas Fields: Mechanisms, Prediction and Reservoir Response, presentation given at the One-Day Meeting with the Industry Members of the Crisman Institute, College Station, Texas, 9 Aug 2006.
35. **Falcone, G.** (2006), Decision Matrix for Liquid Loading in Gas Wells for Cost/Benefit Analyses of Lifting Options, presentation given at the Technology Transfer Meeting with the Industry Members of the Crisman Institute, College Station, Texas, 23 May 2006.

36. **Falcone, G.** (2006), What Can Multiphase Flow Metering Really Do?, Invited Keynote Speaker, Multiphase Measurement Roundtable, Houston, Texas, 3 May 2006.
37. **Falcone, G.** (2005), Experimental and Numerical Investigation of Wellbore Phase Redistribution Effects on Pressure Transient Data, presentation given at the Meeting with the Sponsors of the JIP on Well Test Analysis in Gas Condensate and Volatile Oil Reservoirs, Imperial College, London, England, 12 Sep 2005.
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