Curriculum Vitae

Ilyasse Aksikas, PhD

Assistant Professor
Qatar University
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Adjunct Professor
University of Alberta
Department of Chemical and Materials Engineering
Edmonton, Alberta, Canada
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SUMMARY OF QUALIFICATIONS

- Active teaching and research programs. Creative, organizational, and leadership skills.

- Committed and motivated educator who believes in providing students with the best education possible and is qualified to help them reach their maximum potential.

- Specialist in optimization and control of dynamical PDE systems with application to transport-reaction processes.

- Excellent language skills: English (Fluent), French (Fluent) and Arabic (Native).

EDUCATION

- 2002-2006   **Ph.D in Applied Mathematics**
  Ecole Polytechnique de Louvain, Université catholique de Louvain, Belgium.

- 2000-2002   **Master in Applied Mathematics**
  Ecole Polytechnique de Louvain, Université catholique de Louvain, Belgium.

- 1996-2000   **Bachelor in Applied Mathematics**
  Department of Mathematics, University of Chouaib Doukkali, Morocco.

ACADEMIC EXPERIENCE

- Sep 2012- Present   **Assistant Professor**
  Department of Mathematics and Physics, Qatar University, Doha, Qatar.

- Feb 2011- Present   **Adjunct Professor**
  Department of Chemical and Materials Engineering, University of Alberta, Edmonton, Canada

- Jan 2011 - Aug 2012   **Assistant Professor**
  Department of Mathematics, King Abdelaziz University, Jeddah, Saudi Arabia.

- Jan 2007 - Jan 2011   **Research Associate** & **Lecturer**
  Department of Chemical & Materials Engineering, University of Alberta, Edmonton, Canada.

- Jan 2006 - Dec 2006   **Post-Doctoral Fellow**
  Department of Chemical & Materials Engineering, University of Alberta, Edmonton, Canada.

- Oct 2002 - Dec 2005   **Teaching Assistant**
  Ecole Polytechnique de Louvain, Université catholique de Louvain, Louvain-la-neuve, Belgium.

INDUSTRIAL EXPERIENCE

- March 2009- December 2010   **Process Control Consultant**
  Canmet Energy, Natural Resources Canada, Varennes, Canada.

- January - April 2008   **Mathematical Modelling Consultant**
  Syncrude Research Center, Edmonton, Canada.

HONORS, GRANTS AND AWARDS

- 2013   **Start up Grant, QR 48,000**
  Qatar University, Doha, Qatar

- 2011   **Grant: Distinct Research Study, SR 50,000**
  King Abdulaziz University, Jeddah, KSA

- 2005   **Grant to Pursue Graduate Studies**
  IAP, Université catholique de Louvain, Louvain-la-neuve, Belgium.

- 2005   **Student Congratulation Award**
  Ecole Polytechnique de Louvain, Université catholique de Louvain, Louvain-la-neuve, Belgium.

- 2001-2004   **Scholarship to Pursue Graduate Studies**
  SCO-CUIF, Université catholique de Louvain, Louvain-la-neuve, Belgium.

- 2004   **Grant to Participate at NOLCOS 2004**
  Marie-Curie, Stuttgart, Germany.

- 1996-2000   **Scholarship to Pursue Undergraduate Studies**
  University of Chouaib Doukkali, El Jadida, Morocco.

TEACHING

Qatar University (Qatar):

- MATH 119: Business Mathematics, Spring 2014, Department of Mathematics.

- MATH 103: Intermediate Algebra, Spring 2014, Department of Mathematics

- MATH 101: Calculus I, Fall 2012, Spring 2013, Department of Mathematics.

- MATH 102: Calculus II, Fall 2012, Department of Mathematics.

King Abdelaziz University (KSA):

- MATH 202: Calculus II, Fall 2011, Spring 2012, Department of Mathematics.

- MATH 204: Differential Equations I, Fall 2011, Spring 2012, Department of Mathematics

- MATH 603: Stability Theory, Fall 2011, Department of Mathematics.

- MATH 691: Infinite-Dimensional Systems, Spring 2012, Department of Mathematics.

University of Alberta (Canada):

- MATH 337: Introduction to Partial Differential Equations, 2007, Department of Mathematical and Statistical Sciences.

- CHE 555: Introduction to Process Optimization, 2009, Department of Chemical and Materials Engineering.

- CHE 596: Engineering Optimization, 2010, Department of Chemical and Materials Engineering.

Université catholique de Louvain (Belgium):

- FSAB 1102: Calculus II, 2004, Ecole Polytechnique de Louvain.

- FSAB 1102: Linear Algebra II, 2005, Ecole Polytechnique de Louvain.

Developed E-Courses

- Introduction to Partial Differential Equations.

- Engineering Optimization.

- Calculus I.

SUPERVISORY EXPERIENCE

- L. Mohammadi Sardroud, Model-Predictive Control of Distributed Parameter Hydrotreating Catalytic Reactors, Ph.D., University of Alberta, 2013.

- A. Moghadam, Distributed Optimal Control of a Coupled PDEs/ODEs Model of a CSTR and a PFR in Series, PhD, University of Alberta, 2013.

- J. Ng, Dynamics and Optimal Control of Reaction-Diffusion Systems on Time Varying Spatial Domains, Master, University of Alberta, 2012.

- A. Fuxman, Model-Based Control of Continuous Flow Reversal Reactors, Ph.D., University of Alberta, 2008.

PROFESSIONAL ACTIVITIES

- **Committee participation**
  - 2012-present: Students affairs committee, Department of Mathematics, Statistics and Physics, Qatar University, Doha, Qatar
  - 2012-present: External relations committee, Department of Mathematics, Statistics and Physics, Qatar University, Doha, Qatar
  - 2011-2012: Accreditation committee, Department of Mathematics, King Abdulaziz University, KSA

- **Membership**

  - 2007-present: Applied Mathematics Institute (AMI), University of Alberta, Edmonton, Canada.
  - 2006-present: Computer Process Control Group (CPC), Department of Chemical and Materials Engineering, University of Alberta, Edmonton, Canada.

- **Reviewer of**

  - IEEE Transactions on Automatic Control
  - Automatica
  - International Journal of Control
  - International Journal of System and Science
  - Optimal Control: Applications and Methods
  - Chemical Engineering Communications
  - Conference on Decision and Control
  - American Control Conference
  - European Control Conference
  - IFAC World Congress
  - Mediterranean Conference on Control and Automation
  - IFAC Symposium on System, Structure and Control
  - International Symposium on Advanced Control of Industrial Processes.
  - IFAC Workshop on Control of Systems Governed by Partial Differential Equations

- **Organizer and/or Chair of**

  - MED'11 regular session on Model Predictive Control, Corfu, Greece, June 2011.
  - IFAC Workshop on Control of Distributed Parameter Systems, Banff, Canada, July 2013.
  - MED'10 invited session on Distributed Parameter Systems, Marrakech, Morocco, June 2010.
  - IFAC'08 session, Applied Process Control, Seoul, South Korea, August 2008.

RESEARCH INTERESTS

- LQ-Optimal Control of Infinite-Dimensional Systems

- Model Predictive Control of Distributed Parameter Systems

- Stability of Semi-linear Infinite-Dimensional Systems

- Chemical and Biochemical Process Control

PUBLICATIONS

Refereed Journal Papers

Forthcoming

- L. Mohammadi, **I. Aksikas**, S. Dubljevic, J.F. Forbes, LQ-control of coupled parabolic PDE-ODE systems with application to catalytic cracking reactor, in preparation, 2013.

- A.A. Moghadam, **I. Aksikas**, S. Dubljevic, J. F. Forbes, LQ (optimal) control of Hyperbolic PDAEs, International Journal of Control, accepted, 2013.

2013

- **I. Aksikas**, L. Mohammadi, J.F. Forbes, Y. Belhamadia, S. Dubljevic, Optimal control of an advection-dominated catalytic fixed-bed reactor with catalytic deactivation, Journal of Process Control, vol. 23, pp. 1508-1514, 2013.

- J. Ng, **I. Aksikas**, S. Dubljevic, Control of Parabolic PDEs with time-varying spatial domain: Czochralski crystal growth process, International Journal of Control, vol. 86:9, pp. 1467-1478.

- A.A. Moghadam, **I. Aksikas**, S. Dubljevic, J. F. Forbes, LQR-control for a class of coupled hyperbolic PDEs and ODEs: Application to a CSTR-PFR system, Automatica, Vol. 49:2, pp. 526-533, 2013.

2012

- A.A. Moghadam, **I. Aksikas**, S. Dubljevic, J.F. Forbes, LQ (optimal) control of a dimethyl ether (DME) catalytic distillation infinite-dimensional model, Journal of Process Control, vol. 22:9, pp. 1655-1669 , 2012.

- L. Mohammadi, **I. Aksikas**, S. Dubljevic, J.F. Forbes, LQ-boundary control of a diffussion-convection-reaction system, International Journal of Control, vol. 85:2, pp. 171-181, 2012.

2010

- **I. Aksikas**, J. F. Forbes, On asymptotic stability of semi-linear distributed parameter dissipative systems, Automatica, vol. 46:6, pp. 1042-1046, 2010.

- **I. Aksikas**, J. F. Forbes, Linear quadratic regulator for time-varying hyperbolic distributed parameter systems, IMA Journal of Mathematical Control and Information, vol. 27 (3), pp. 387-401, 2010.

2009

- **I. Aksikas**, A. M. Fuxman, J.F. Forbes, Optimal control design for time-varying catalytic reactors: A Riccati equation-based approach, International Journal of Control, vol. 84, no. 7, pp. 1219-1228, 2009.

- **I. Aksikas**, A. M. Fuxman, J.F. Forbes, LQ-control design of a class of hyperbolic PDE's system: application to a fixed-bed reactor, Automatica, vol. 45, no. 6, pp. 1542-1548, 2009.

2008

- A. M. Fuxman, **I. Aksikas**, J.F. Forbes, LQ-feedback control of a reverse flow reactor, Journal of Process Control, 18, pp. 654-662, 2008.

- **I. Aksikas**, J. Winkin, D. Dochain, Optimal LQ-feedback control for a class of first-order hyperbolic distributed parameter systems, ESAIM: Control, Optimisation and Calculus of Variations, vol. 14, No. 4, pp. 897-908, 2008.

2007

- **I. Aksikas**, J. Winkin, D. Dochain, Optimal lq-feedback regulation of a non-isothermal plug flow reactor model by spectral factorization, IEEE Transactions on Automatic Control, IEEE Transactions on Automatic Control, Vol. 52, No. 7, pp. 1179-1193, 2007.

- **I. Aksikas**, J. Winkin, D. Dochain, Asymptotic stability of infinite dimensional semi-linear systems: application to a non-isothermal reactor, Systems & Control Letters, Vol 52, Issue 2, pp. 122-132, 2007.

- **I. Aksikas**, J. Winkin, D. Dochain, LQ-optimal feedback regulation of a non-isothermal plug flow reactor infinite-dimensional model, International Journal of Tomography and Statistics, Special Issue on Control Applications of Optimisation-Control of PDE's, Vol 5, W07, pp. 73-78, 2007.

Refereed Proceedings Papers

Forthcoming

- **I. Aksikas**, Asymptotic stability of time-varying infinite-dimensional semi-linear systems, Proceedings of the IFAC World Congress'2014, submitted, 2013.

- L. Mohammadi, **I. Aksikas**, S. Dubljevic, J.F. Forbes, Boundary optimal control of coupled parabolic PDE-ODE systems, Proceedings of the IFAC World Congress'2014, submitted, 2013.

2013

- **I. Aksikas**, Stability criteria for non-linear time-varying PDEs, Proceedings of the 1st IFAc Workshop on Control of Systems Governed by Partial Differential Equations (CPDE'13), 2013.

2012

- J. Ng, S. Dubljevic, **I. Aksikas**, Aspects of controllability and observability for time-varying PDE systems, Proceedings of the American Control Conference, ACC'12, pp. 2220-2225, 2012.

- A. Alizadeh Moghadam, **I. Aksikas**, S. Dubljevic, J.F. Forbes, Optimal LQ-Control of a PDAE Model of a Catalytic Distillation Process, Proceedings of 8th IFAC Symposium on Advanced Control of Chemical Processes, ADCHEM'12, pp. 75-80, 2012.

2011

- J. Ng, S. Dubljevic, **I. Aksikas**, Optimal control of a class of linear nonautonomous parabolic PDE via two-parameter semigroup representation, Proceedings of the CDC-ECC'11, pp.6997-7002, 2011.

- A. Alizadeh Moghadam, **I. Aksikas**, S. Dubljevic, J.F. Forbes, Distributed optimal control of a Dimethyl Ether (DME) catalytic distillation column, Proceedings of the CDC-ECC'11, pp. 2770-2775, 2011.

- J. Ng, S. Dubljevic, I. Aksikas, Model predictive control of Czochralski crystal growth process, Proceedings of the IEEE Mediteranean Conference on Automation and Control, pp. 560-565, 2011.

- A. Alizadeh Moghadam, **I. Aksikas**, S. Dubljevic, J. F. Forbes, LQR control of an infinite-dimendional time-varying CSTR and PFR system, Proceedings of the 18th IFAC World Congress, pp. 14446-14451, 2011.

- L. Mohammadi, **I. Aksikas**, S. Dubljevic, J.F. Forbes, Linear quadratic optimal boundary control of a diffusion-convection -reaction system, Proceedings of the 18th IFAC World Congress, pp. 12048-12053, 2011.

- J. Ng, S. Dubljevic, **I. Aksikas**, Model Predictive Control Formulation for a Class of Time-Varying Linear Parabolic PDEs, Proceedings of the American Control Conference ACC'11, pp. 2963-2968, 2011.

- J. Ng, S. Dubljevic, **I. Aksikas**, Application of Optimal Boundary Control to Reaction-Diffusion System with Time-Varying Spatial Domains, Proceedings of the American Control Conference, ACC'11, pp. 2528-2533, 2011.

2010

- J. Ng, S. Dubljevic, **I. Aksikas**, Multiscale optimal control problem of parabolic PDE system with time varying domain, IEEE Conference on Decision and Control, CDC'10, pp. 858-863, 2010.

- A. Fuxman, **I. Aksikas**, F. Forbes, R.E. Hayes, S. Hristo, LQR of a flow reversal catalytic reactor: numerical and experimental Results, Proceedings of the 18th Mediterranean Conference on Control and Automation, MED 2010, Marrackech, Morocco, pp. 375-380, 2010.

- A.A. Moghadam, **I. Aksikas**, S. Dubljevic, F. Forbes, LQ-control of coupled hyperbolic PDEs and ODEs: application to a CSTR-PFR system, Proceedings of the IFAC International Symposium on Dynamics and Control of Process Systems, DYCOPS 2010, Leuven, Belgium, pp. 921-926.

- A.A. Moghadam, **I. Aksikas**, S. Dubljevic, F. Forbes, Optimal control of a time-varying coupled PDEs-ODEs System by LQR, Proceedings of the International Symposium on Mathematical Theory of Network and Systems, MTNS'2010, Budapest, Hungary, pp. 1833-1838, 2010.

- J. Ng, S. Dubljevic, **I. Aksikas**, Multiscale dynamics optimal control of parabolic PDE with time varying spatial domain (crystal growth process), Proceedings of the International Symposium on Mathematical Theory of Network and Systems, MTNS'2010, Budapest, Hungary, pp. 999-1006, 2010.

2009

- **I. Aksikas**, J.F. Forbes, Stability criteria for dissipative distributed parameter systems with application, Proceedings of the European Control Conference, ECC'09, Budapest, Hungary, pp. 1632-1637, 2009.

- L. Mohammadi, **I. Aksikas**, J.F. Forbes, Characteristic-based MPC of a fixed bed reactor with catalyst deactivation, Proceedings of the International Symposium on Advanced Control of Chemical Processes, ADCHEM'09, Istanbul, Turkey, paper no 62, 2009.

- L. Mohammadi, **I. Aksikas**, J.F. Forbes, Optimal control of a catalytic fixed bed reactor with catalyst deactivation, Proceeding of the American Control Conference, ACC'09, Saint-Louis, MO, U.S.A, pp. 1040-1045 , 2009.

2008

- **I. Aksikas**, F. Forbes, Optimal control of a class of time-varying hyperbolic distributed parameter systems, Proceedings of 18th International Symposium on Mathematical Theory of Networks and Systems, MTNS'08, Blacksburg, VA, U.S.A, 2008.

- **I. Aksikas**, A. M. Fuxman, F. Forbes, Control of time-varying distributed parameter plug flow reactor by LQR, Proceedings of the 17th IFAC World Congress, pp. 11955-11960, Seoul, South Korea, 2008.

2007

- A. M. Fuxman, **I. Aksikas**, F. Forbes, Control of catalytic flow-reversal reactor with infinite-dimensional linear-quadratic regulator, Proceedings of the 8th International IFAC Symposium on Dynamics and Control of Process Systems, DYCOPS'07, Vol. 2, pp. 349-354, Cancum, Mexico, 2007.

- **I. Aksikas**, F. Forbes, State LQ-feedback control for hyperbolic PDE's systems: application to a fixed-bed reactor, Proceedings of the European Control Conference, ECC 07, pp. 5595-5601, Kos, Greece, 2007.

2006

- **I. Aksikas**, J. Winkin, D. Dochain, LQ-optimal control of a class of first-order hyperbolic PDE's systems, Proceedings of the 45th IEEE Conference on Decision and Control, CDC06, pp. 3944-3949, San Diego, California, USA, 2006.

- **I. Aksikas**, J. Winkin, D. Dochain, LQ-optimal feedback regulation of a non-isothermal plug flow reactor infinite-dimensional model, Proceeding of 13th IFAC Workshop on Control Application of Optimisation, pp. 88-93, Paris-Cachan, France, 2006.

2004

- **I. Aksikas**, J. Winkin, D. Dochain, Stability analysis of an infinite dimensional linearized plug flow reactor model, Proceedings of the 43rd IEEE Conference on Decision and Control, CDC04, pp. 2417-2422, Atlantis, Paradise Island, Bahamas, 2004.

- **I. Aksikas**, J. Winkin, D. Dochain, Asymptotic stability of a non-isothermal plug flow reactor infinite-dimensional model, Proceedings of the 6th IFAC Symposium on Nonlinear Control Systems, NOL-COS04, Vol 3, pp. 1049-1054, Stuttgart, Germany, 2004.

- **I. Aksikas**, J. Winkin, D. Dochain, Temperature regulation of a non-isothermal plug flow reactor by lq-feedback, Proceedings of the 16th International Symposium on Mathematical Theory of Networks and Systems, MTNS04, CD-Rom, Paper 229, Leuven, Belgium, 2004.

Unrefereed Conference Papers

2011

- J. Ng, S. Dubljevic, **I. Aksikas,** Optimal control of a class of linear time-varying parabolic PDE using evolution systems, Workshop on Control of Distributed Parameter Systems, Wuppertal, Germany, 2011.

2010

- L. Mohammadi, **I. Aksikas**, S. Dubljevic, J. F. Forbes, Linear quadratic control of a tubular reactor with axial dispersion, Proceeding of the 60th Canadian Chemical Engineering Conference, Saskatoon, Canada, 2010.

- A. A. Moghadam, **I. Aksikas**, S. Dubljevic, J. F. Forbes, LQR control for a class of interacting hyperbolic distributed and lumped parameter system, Proceeding of the 60th Canadian Chemical Engineering Conference, Saskatoon, Canada, 2010.

2009

- L. Mohammadi, **I. Aksikas**, J.F. Forbes, Characteristics-Based MPC of a Naphtha Headrotreating Reactor with Catalyst Deactivation, Proceedings of the 8th World Congress of Chemical Engineering, Montreal, 2009.

- **I. Aksikas**, J.F. Forbes, Asymptotic Stability for Dissipative Semi-Linear Infinite-Dimensional Systems, Proceedings of the IFAC Workshop on Control Distributed Parameter Systems, Toulouse, France, 2009.

- **I. Aksikas**, A. Fuxman, J.F. Forbes, R.E. Hayes, H. Sapoundjiev, Model-Based Control of a Flow Reversal Reactor, Proceedings of the 8th World Congress of Chemical Engineering, Montreal, 2009.

2007

- A.M. Fuxman, **I. Aksikas**, J. F. Forbes, R.E. Hayes, Control of Catalytic Flow Reversal Reactors, the 57th Canadian Chemical Engineering Conference, 2007.

- **I. Aksikas**, J. F. Forbes, Control Design of a Fixed-Bed Reactor, IFAC Workshop on Control of Distributed Parameter Systems, CDPS'07, pp. 24-25, 2007.

2005

- **I. Aksikas**, J. Winkin, D. Dochain, LQ-Optimal Feedback Regulation of a Nonisothermal Plug Flow Reactor Infinite-Dimensional Model, Workshop on Control of Infinite-Dimensional Systems, University of Waterloo, 2005.

- **I. Aksikas**, J. Winkin, D.Dochain, LQ-Optimal Regulation of a Distributed parameter Plug Flow Reactor Model, Proceedings of the 24th Benelux Meeting on Systems and Control, Houffalize, Belgium, 2005.

2002-2004

- **I. Aksikas**, J. Winkin, D. Dochain, Asymptotic Stability of a Nonisothermal Plug Flow Reactor Model, Proceedings of the 23rd Benelux Meeting on Systems and Control, Helvoirt, The Netherlands, March 17-19, 2004.

- **I. Aksikas**, J. Winkin, D. Dochain, Stability Analysis of an Infinite Dimensional Linearized Plug Flow Reactor Model, Proceedings of the 22nd Benelux Meeting on Systems and Control, Lommel, Belgium, March 19-21, 2003.

- **I. Aksikas**, J. Winkin, D. Dochain, LQ-Optimal Temperature Regulation of a Nonisothermal Plug Flow Reactor Model, Poster presented in joint ICCoS-IAP study day at the University Catholique of Louvain, Belgium, 2002.

<u>Seminars and Conference Presentations</u>

2013

- Asymptotic stability of time-varying infinite-dimensional semi-linear systems, 1st IFAC Workshop on Control of Systems Governed by PDEs, Paris, France, September 24-26, 2013.

2011

- Optimal control of a class of linear time-varying parabolic PDE using evolution systems, Workshop on Control of Distributed Parameter Systems, Wuppertal, Germany, July 18-22, 2011.

- Model predictive control of Czochralski crystal growth process, IEEE Mediteranean Conference on Automation and Control, Corfu, Greece, June 20-23, 2011.

2010

- LQ-control of a catalytic flow reversal reactor, Mediterranean Control Conference (MED'10), Marrakech, Morocco, June 23-26, 2010.

2009

- Asymptotic stability for dissipative semi-linear infinite-dimensional systems, Seminar at University of Waterloo, Canada, December 2009,

- Stability criteria for dissipative distributed parameter systems with application, European Control Conference (ECC'09), Budapest, Hungary, 2009.

- Asymptotic stability for dissipative semi-linear infinite-dimensional systems, IFAC Workshop on Control Distributed Parameter Systems (CDPS'09), Toulouse, France, 2009.

- Optimal control of a catalytic fixed bed reactor with catalyst deactivation, American Control Conference (ACC'09), Saint Louis, Missouri, U.S.A, 2009.

2008

- Optimal control of a class of time-varying hyperbolic distributed parameter systems, Mathematical Theory of Networks and Systems (MTNS'08), Blacksburg, U.S.A, July 28-August 01, 2008.

- Control of time-varying distributed parameter plug flow reactor by LQR, 17th IFAC World Congress, Seoul, South Korea, July 06-11, 2008.

2007

- Control design of a fixed-bed reactor, IFAC Workshop on Control of Distributed Parameter Systems, CDPS'07, Namur, Belgium, July 23-27, 2007.

- State lq-feedback for hyperbolic PDE's systems : application to fixed-bed reactor, European Control Conference (ECC'07), Kos, Greece, July 2-5, 2007.

2006

- LQ-optimal control of a class of first-order hyperbolic PDE's systems, IEEE Conference on Decision and Control (CDC'06), San Diego, USA, December 13-15, 2006.

- LQ-optimal feedback regulation of a non-isothermal plug flow reactor infinite-dimensional model, 13th IFAC Workshop on Control Application of Optimisation, Paris, France, April 26-28, 2006.

2005

- LQ-optimal regulation of a distributed parameter plug flow reactor model, 24th Benelux Meeting on Systems and Control, Houffalize, Belgium, March 22-24, 2005.

- Analysis and lq-optimal control of infinite-dimensional semi-linear systems, Seminar at Université catholique de Louvain, Belgium, 2005

2004

- Stability Analysis of an Infinite-Dimensional Linearized Plug Flow Reactor Model, IEEE Conference on Decision and Control, (CDC'04), Paradise Island, Bahamas, 2004.

- Asymptotic Stability of a Non-isothermal Plug Flow Infinite-Dimensional Model, 6th IFAC Symposium on Nonlinear Control System (NOLCOS'04), Stuttgart, Germany, 2004.

- Temperature regulation of a non-isothermal plug flow reactor by lq-feedback, Mathematical Theory of Network and Systems, (MTNS'04), Leuven, Belgium, 2004.

- The LaSalle's invariance principle for infinite-dimensional systems. application to non-isothermal chemical reactors, Seminar at Université catholique de Louvain, Belgium, April 27, 2004.

- Asymptotic stability of a non-isothermal plug flow reactor model, 23rd Benelux Meeting on Systems and Control, Helvoirt, The Netherlands, March 17-19, 2004.

2003

- Stability analysis of an infinite dimensional linearized plug flow reactor model, 22nd Benelux Meeting on Systems and Control, Lommel, Belgium, March 19-21, 2003.

- LQ-optimal temperature regulation of a non-isothermal plug flow reactor model, Poster presented in joint ICCoS-IAP study day at the Université Catholique de Louvain, Belgium, 2002.

REFERENCES

- **Prof Fraser Forbes**
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  Department of Chemical and Materials Engineering
  Edmonton, Alberta, Canada, T6G 2V8
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  Phone: 1 780-492-0873

- **Prof Joseph Winkin**
  Department of Mathematics
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- **Prof Hans Zwart**
  University of Twente
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- **Prof Stevan Dubljevic**
  University of Alberta
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- **Prof Kirsten Morris**
  University of Waterloo
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- **Prof Robert Hayes**
  University of Alberta
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