

CHUILI SUN

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EDUCATION

Ph.D.	Chemical Engineering, Texas A&M University, College Station, TX	Dec. 2006
M.S.	Control Theory and Control Engineering, Tsinghua University, Beijing, China	Jul. 2002
B.S.	Automation, Tsinghua University, Beijing, China	Jul. 1999

EXPERIENCE

- ◆ **Board of Directors, AYLF (The Alliance of Youth Leader Foundation)** Jan. 2026- present
Member

Involving in making plans, policies and decisions, organizing events, etc
- ◆ **Aylus of Lake Washington Branch** Sep. 2024 - present
Advisor

Branch management, organizing and leading events, etc
- ◆ **North America Federation of Tsinghua Alumni Associations** Sep. 2017 - present
Senior Editor of Wechat Official Account

Layout designing, article editing reviewing and publishing, etc
- ◆ **Self-Media** Jan. 2016 - present
Writer and photographer

Writing blogs, making videos, etc
- ◆ **True Martial Arts in Sammamish** Jan. 2017 - present
3rd degree black belt, senior instructor

Training and instructing
- ◆ **TusStar Incubator Investment LLC** Nov. 2017 - present
Chief Representative

Maintaining, filing annual reports and tax, etc
- ◆ **Sammamish Chinese School** Sep. 2014 – Aug. 2020
Instructor

Taught Chinese, math, gifted program test preparation
- ◆ **Dept. of Chemical Engineering, University of Louisiana at Lafayette** Oct. 2007 - Jun. 2008
Research Associate

Optimization of enzymatic reactions using molecular dynamic modeling and quantum mechanics
- ◆ **Process Systems Engineering Group, Texas A&M University** Sep. 2002 - Dec. 2006
Research Assistant

Developed model reduction techniques for use in model-based process control

♦ **Process Control Institute, Tsinghua University**
Research Assistant

Jan. 1999 – Jul. 2002

Designed a computer user interface for simulation of crude oil distillation system and controller design

♦ **Fujian Refinery Corp.**
Internship as Process Engineer

Jun. 2000 - Aug. 2000

♦ **Bridge of Business Corp.**
Internship as Webpage Developer

Jun. 2001 - Aug. 2001

JOURNAL PUBLICATIONS

- Chuili Sun, Juergen Hahn, **Model Reduction in the Presence of Uncertainty in Model Parameters**, *Journal of Process Control*, 16 (6) 2006, 645~649
- Chuili Sun, Juergen Hahn, **Parameter Reduction for Stable Dynamical Systems based on Hankel Singular Values and Sensitivity Analysis**, *Chemical Engineering Science*, 61 (16), 2006, 5393~5403
- Chuili Sun, Juergen Hahn, **Reduction of Differential-Algebraic Equation Systems via Projections and System Identification**, *Journal of Process Control*, 15 (6) 2005, 639~650
- Chuili Sun, Bowen Xu, **A Process Model Based On-line Energy Optimization of Crude Oil Distillation**, *Control and Instruments in Chemical Industry* (Core Academic Journal of China), 28 (4) 2001, 22~25
- Chuili Sun, Bowen Xu, **Simulation Research of Distillation Process Based on Computer Simulation Platform**, *Computer Engineering and Applications*, 2002 (In Chinese)
- Chuili Sun, Bowen Xu, **Research of Atmosphere of Distillation Column's Siding Quality Control Simulation Based On Dynamic Modeling**, *Computer Simulation*, 3, 2002, 74~77 (In Chinese)
- Chuili Sun, Bowen Xu, **Design and Realization of An Open Platform for Distillation Process Simulation**, *Journal of System Simulation*, 13, Supp. 2001, 136~139 (In Chinese)
- Chuili Sun, Bowen Xu, **Modeling and On-line Optimization System of the Crude Oil Distillation Process**, *Petroleum Chemical Industry of China*, 2001, 61~65 (In Chinese)

CONFERENCE AND PRESENTATIONS

- **Parameter Reduction for Nonlinear Models Based on Hankel Singular Values and Sensitivity Analysis**, *2005 AIChE Annual Meeting*, Cincinnati, 2005
- **On the Use of Partial Least Squares (PLS) and Balancing for Nonlinear Model Reduction**, *American Control Conference*, Portland, 2005, BEST PAPER IN SESSION AWARD
- **Nonlinear Model Reduction of Differential Algebraic Equation (DAE) Systems**, *2004 AIChE Annual Meeting*, Austin, 2004
- **Design and Realization of an On-line Optimization System for Distillation Process**, *12th FAIM*, 2002, Dresden, Germany

HONORS AND AWARDS

Best Paper in Session Award, American Control Conference (ACC), 2005

Research and Presentation Grant, Texas A&M University, 2005

Excellent Master Thesis, Tsinghua University, 2002

Rockwell Automation Scholarship (the Highest Scholarship of Graduate Students), Tsinghua University, 2001