

## Prof. YangQuan Chen's Publication List (last Updated 3/26/15)

### Citation summaries: (as of 3/25/2015, |red numbers as of 4/8/14)

- [www.researcherid.com/rid/A-2301-2008](http://www.researcherid.com/rid/A-2301-2008) (198|183 SCI papers, ISI H-index 33|31; ISI citations: 3849|3053, top ISI cited article: 294|210 citations)
- <http://scholar.google.com/citations?hl=en&user=RDEIRbcAAAAJ> (H-index 56|51; i10-index: 288|252; total citations 15022|12155, top cited article: 632|499 citations) (Last 5 years: H-index 49|45; i10-index: 214|203; total citations 11474|9387)
- <http://www.scopus.com/authid/detail.url?authorId=7601439185> 518 Documents. Cited by 4040 documents. 150 co-authors. 6766 total citations. H-index: 43.

(\* indicates corresponding author, + student coauthor)

### Theses:

1. Yangquan Chen, "High-order Iterative Learning Control: Convergence, Robustness and Applications," Ph.D. Dissertation, December 1997. School of Electrical and Electronic Engineering, Nanyang Technological University (NTU), Singapore.
2. Yangquan Chen, "Flying Vehicle Simulation Studies and Identification of Aerodynamic Coefficients From Range Test Data," Master of Engineering Thesis, April 1988. Department of Automatic Control, Beijing Institute of Technology (BIT), Beijing, China.
3. Yangquan Chen, "Special Purpose Microcomputer Hardware Design for Industrial Process Control", Bachelor of Engineering Thesis. June 1985. Department of Automation, University of Science and Technology of Beijing (USTB), Beijing, China.

### Monographs and Textbooks:

1. Dingyu Xue and YangQuan Chen. "Modeling, Analysis and Design of Control Systems in MATLAB and Simulink" (World Scientific 2014)  
<http://www.worldscientific.com/worldscibooks/10.1142/9260> 580pp Nov 2014. ISBN: 978-981-4618-45-8 (hardcover)
2. Dingyu Xue and YangQuan Chen. "System Simulation Techniques with MATLAB® and Simulink®". 2013. John Wiley & Sons, Ltd. ISBN: 978-1-118-64792-9. (468 pages)  
<http://www.wiley.com/go/xue>
3. Ying Luo+ and YangQuan Chen\*. "Fractional Order Motion Controls" John-Wiley and Sons, Inc., 2012 (Online Oct. 2012, 424 pages) ISBN: 978-1119944553. DOI: 10.1002/9781118387726
4. Zhuang Jiao+, YangQuan Chen\* and Igor Podlubny. "Distributed-Order Dynamic Systems: Stability, Simulation, Applications and Perspectives" SpringerBrief, Springer-Verlag, Feb. 2012, 103 pages, ISBN-13: 978-1447128519 <http://www.springer.com/engineering/control/book/978-1-4471-2851-9>
5. Haiyang Chao+ and YangQuan Chen\*. "Remote Sensing and Actuation Using Unmanned Vehicles" Wiley-IEEE Press, Aug. 2012 ISBN-13: 978-1118122761 (IEEE Press Series on Systems Science and Engineering) <http://www.wiley.com/WileyCDA/WileyTitle/productCd-1118122763.html>
6. Christophe Tricaud+ and YangQuan Chen\*. "Optimal Mobile Sensing and Actuation Policies in Cyber-physical Systems". Springer. ISBN 978-1-4471-2261-6. 2012. (170 pages)  
<http://www.springer.com/engineering/robotics/book/978-1-4471-2261-6>
7. Sheng, Hu+, Chen, YangQuan\* and Qiu, TianShuang. "Fractional Processes and Fractional-Order Signal Processing" Springer. Series: Signals and Communication Technology, 2012. 295 pages. ISBN 978-1-4471-2232-6 <http://www.springer.com/engineering/signals/book/978-1-4471-2232-6>
8. Concepción A. Monje\*+, YangQuan Chen, Blas Vinagre, Dingyu Xue and Vicente Feliu (2010). "Fractional Order Systems and Controls - Fundamentals and Applications." Advanced Industrial

- Control Series, Springer-Verlag <http://www.springer.com/engineering/book/978-1-84996-334-3> (1st Edition, 2010, XXVI, 415 p. 223 illus., 19 in color. Hardcover ISBN: 978-1-84996-334-3)
9. Zheng Song+, YangQuan Chen\*, Chellury Ram Sastry and Nazif Cihan Tas (2009). “*Optimal Observation for Cyber-Physical Systems: A Fisher Information Matrix Based Approach.*” Springer-Verlag, 2009. (ISBN: 978-1-84882-655-7, July 2009, 170 pages) <http://www.springer.com/engineering/control/book/978-1-84882-655-7>
  10. Dingyu Xue\* and YangQuan Chen (2008). “*Solving Applied Mathematical Problems with MATLAB*”. (ISBN: 978-1420082500) Chapman & Hall/CRC Press. Nov. 2008. (448 pages) <http://www.crcpress.com/product/isbn/9781420082500>
  11. Hyo-Sung Ahn+, Kevin L. Moore\*, and YangQuan Chen (2007). “*Iterative Learning Control: Robustness and Monotonic Convergence in the Iteration Domain*”. Springer-Verlag, Communications and Control Engineering Series, ISBN: 978-1-84628-846-3. (203 pages) <http://www.springer.com/mathematics/applications/book/978-1-84628-846-3>
  12. Dingyu Xue, YangQuan Chen\* and Derek Atherton (2007). “*Linear Feedback Control – Analysis and Design with Matlab*”. SIAM Press, 2007, ISBN: 978-0-898716-38-2. (348 pages) (Book review in IEEE Control Systems Magazine, Jan. issue of 2009) <http://epubs.siam.org/doi/abs/10.1137/1.9780898718621.fm>
  13. Dingyu Xue\* and YangQuan Chen (2007). “*Solving Control Related Mathematical Problems Using Matlab*”. (ISBN: 9787302152972) Tsinghua University Press, Beijing, China, 2007. (474 pages in Chinese, <http://www.china-pub.com/computers/common/info.asp?id=37025>)
  14. Dingyu Xue\* and YangQuan Chen (2004). “*Solving Advanced Applied Mathematical Problems Using Matlab*”. (ISBN 7-302-09311-3/O.392) Tsinghua University Press, Beijing, China, August 2004. (419 pages in Chinese). Second edition: ISBN 978-7302186182, Tsinghua University Press, Beijing, China, Oct. 2008. (442 pages in Chinese). Third edition: ISBN tbd, Tsinghua University Press, Beijing, China, August. 2013. (468 pages in Chinese).
  15. Dingyu Xue\* and YangQuan Chen (2002). “*System Simulation Techniques and Applications Based on MATLAB/Simulink*”. Tsinghua University Press. 2002. (ISBN7-302-05341-3/TP3137) ([www.tup.tsinghua.edu.cn](http://www.tup.tsinghua.edu.cn)) (435 pages in Chinese). Second edition: ISBN 978-7302238805, March 2011. (412 pages in Chinese)
  16. Yangquan Chen\* and Changyun Wen (1999), “*Iterative Learning Control: Convergence, Robustness and Applications,*” Springer-Verlag, Lecture Notes Series on Control and Information Science, vol. LNCIS-248, 1999, 199 pages, ISBN: 1-85233-190-9.
  17. Yonggao Shi\* and Yangquan Chen (1995), “*Plastic Belt for Projectiles,*” Science & Technology Press of Shaanxi Province, 1995, in Chinese, 162 pages, ISBN 7-5369-2277-9.

#### Edited Books:

1. Igor Podlubny, Blas M. Vinagre Jara, YangQuan Chen, Vicente Feliu Batlle and Inés Tejado Balsera (2010). Proceedings of the 4-th IFAC International Workshop on Fractional Derivatives and Applications. ISBN: 978-80-553-0487-8. University of Extremadura, Badajoz, Spain, October 18-20, 2010. [*Book of Abstracts of FDA10, ISBN: 978-80-553-0488-5*] <http://web.tuke.sk/fda10/>
2. Chen, XQ, Chen, YQ and Chase, JG (2009). “*Mobile Robots: State of the Art in Land, Sea, Air, and Collaborative Missions,*” I-Tech Publishing, Vienna, Austria, ISBN 978-953-307-001-8, 335 pages, Publishing date: May 2009. <http://sciendo.com/books/show/title/mobile-robots-state-of-the-art-in-land-sea-air-and-collaborative-missions>
3. Blas M Vinagre\* and YangQuan Chen (2002). “*Fractional Calculus Applications in Automatic Control and Robotics*”. Lecture Notes Prepared for The Tutorial Workshop at the IEEE International Conference on Decision and Control (CDC), Dec. 9 2002, Las Vegas, USA. (316 PDF pages) <http://mechatronics.ece.usu.edu/foc/cdc02tw/cdrom/Lectures/book.pdf>.

#### Refereed Book Chapters and Book Chapter Papers:

1. Brandon Stark, Calvin Coopmans and YangQuan Chen. “*Concept Of Operations Of Small Unmanned Aerial Systems: Basis For Airworthiness Towards Personal Remote Sensing*” a chapter in Handbook of Unmanned Aerial Vehicles, Valavanis, Kimon P.; Vachtsevanos, George J (Eds.) <http://www.springer.com/engineering/robotics/book/978-90-481-9708-8>
2. Calvin Coopmans, Brandon Stark, Austin Jensen, YangQuan Chen, Mac McKee. “*Cyber-Physical Systems Enabled By Small Unmanned Aerial Vehicles*” a chapter in Handbook of Unmanned Aerial Vehicles, Valavanis, Kimon P.; Vachtsevanos, George J (Eds.) <http://www.springer.com/engineering/robotics/book/978-90-481-9708-8>
3. YangQuan Chen, Kevin L. Moore and Hyo-Sung Ahn. “Iterative Learning Control” in [Encyclopedia of the Sciences of Learning](#) Editor: Norbert M. Seel. Springer Science+Business Media, LLC 2012, Part 9, pp. 1648-1652, DOI: 10.1007/978-1-4419-1428-6\_65
4. Brandon Stark, YangQuan Chen and Mac KcKee (2012). “*AggieVTOL: A Vertical Take Off and Landing Unmanned Aerial Vehicle Platform for Personal Remote Sensing*”. IGI Global Press. A chapter in “Prototyping of Robotic Systems: Applications of Design and Implementation.” Editors: Dr. Tarek Sobh & Dr. Xingguo Xiong, Univ. of Bridgeport, Connecticut, USA, 2012. 35 pages. <http://www.igi-global.com/chapter/aggievtol-vertical-take-off-landing/63532>
5. Christophe Tricaud+ and YangQuan Chen\* (2012). “*Data-Driven Parameter Estimation of Distributed Systems Using Networked Mobile Sensors.*” DDDAS book chapter. Invited and Accepted. Springer-Verlag. Editor: Dr. Darema, Frederica ([www.dddas.org](http://www.dddas.org)) (pending, 2012)
6. Haiyang Chao, Austin M. Jensen, Yiding Han, YangQuan Chen and Mac McKee (2009). *AggieAir: Towards Low-cost Cooperative Multispectral Remote Sensing Using Small Unmanned Aircraft Systems*, Advances in Geoscience and Remote Sensing, Gary Jedlovec (Ed.), ISBN: 978-953-307-005-6, INTECH, Available from: <http://sciyo.com/articles/show/title/aggieair-towards-low-cost-cooperative-multispectral-remote-sensing-using-small-unmanned-aircraft-sys> Pages: 463-490.
7. Yan Li+\* and YangQuan Chen (2009). “*Stability analysis of fractional order universal adaptive stabilization*”. A chapter in “New Trends in Nanotechnology and Fractional Calculus Applications”, Springer, 2009. Part 5, 357-368, DOI: 10.1007/978-90-481-3293-5\_31
8. Ying Luo+, YangQuan Chen\* and Hyo-Sung Ahn (2009). “*Fractional Order Adaptive Control for Cogging Effect Compensation*” A chapter in “New Trends in Nanotechnology and Fractional Calculus Applications”, Springer, 2009. pp. 393-409. Part 5, 393-409, DOI: 10.1007/978-90-481-3293-5\_34
9. Christophe Tricaud+ and YangQuan Chen\* (2009). “*Optimal Real-Time Strategies for Estimation of Distributed Parameter Systems Using Networked Mobile Sensors and Actuators*” Chapter-10 of “Mobile Robots: State of the Art in Land, Sea, Air, and Collaborative Missions,” Edited by X.Q. Chen, Y.Q. Chen, and J.G. Chase, I-Tech Publishing, Vienna, Austria, ISBN 978-3-902613-39-4. (2009) <http://sciyo.com/articles/show/title/optimal-real-time-estimation-strategies-for-a-class-of-cyber-physical-systems-using-networked-mobile>
10. X.Q. Chen\*, Y.Q. Chen, and J.G. Chase (2009). “*Mobiles Robots – Past, Present and Future*”. Chapter-1 of “Mobile Robots: State of the Art in Land, Sea, Air, and Collaborative Missions,” Edited by X.Q. Chen, Y.Q. Chen, and J.G. Chase, I-Tech Publishing, Vienna, Austria, ISBN 978-3-902613-39-4. (2009) Available from: <http://sciyo.com/articles/show/title/mobiles-robots-past-present-and-future>
11. YangQuan Chen (2008).\* “*Robustness of Networked Boundary Control of Damped Wave Equations*”, a Chapter in “*Networked Control Systems: Theory and Applications*”, Fei-Yue Wang and Derong Liu editors, Springer, ISBN: 1848002149, 2008. Pp. 261-273, DOI: 10.1007/978-1-84800-215-9\_9
12. Jinsong Liang+, Weiwei Zhang, YangQuan Chen\*, Igor Podlubny (2007). “*Robustness of Fractional Order Boundary Control of Time-Fractional Wave Equations with Delayed Boundary Measurement Using the Smith Predictor*”. In “*Advances in Fractional Calculus: Theoretical Developments and Applications in Physics and Engineering.*” J. Sabatier, J. Machado and O.

- Agrawal Editors. Springer-Verlag. August 2007. ISBN: 978-1402060410. pages: 61-76. (552 pages in total)
13. Dingyu Xue, YangQuan Chen\* (2007). "Sub-Optimum H2 Pseudo-Rational Approximations to Fractional Order Linear Time Invariant Systems". In "Advances in Fractional Calculus: Theoretical Developments and Applications in Physics and Engineering." J. Sabatier, J. Machado and O. Agrawal Editors. Springer-Verlag. August 2007. ISBN: 978-1402060410. pages: 543-552. (552 pages in total)
  14. Jinsong Liang+, YangQuan Chen\*, Blas M. Vinagre and Igor Podlubny (2005). "Identifying Diffusion-Wave Constant, Fractional Order and Boundary Profile Of A Time-Fractional Diffusion-Wave Equation From Noisy Boundary Measurements". a chapter in "Fractional Derivatives an Their Applications. Part 3: Systems analysis, implementation and simulation, systems identification and control." Editors: A. Le Mehauté, J. A. Tenreiro Machado, J. C. Trigeassou and J. Sabatier. UBooks, Augsburg, Germany, 2005. pp. 517-532. ISBN 3-86608-026-3.
  15. YangQuan Chen\*, Kevin L. Moore, Blas M. Vinagre and Igor Podlubny (2005). "Robust PID Controller Autotuning with A Phase Shaper ". A chapter in "Fractional Derivatives an Their Applications . Part. 3: Systems analysis, implementation and simulation, systems identification and control." Editors: A. Le Mehauté, J. A. Tenreiro Machado, J. C. Trigeassou and J. Sabatier. UBooks, Augsburg, Germany, 2005. pp. 687-706. ISBN 3-86608-026-3.
  16. Jinsong Liang+, YangQuan Chen\*, Blas M. Vinagre and Igor Podlubny (2005). "Fractional Order Boundary Stabilization Of A Time-Fractional Wave Equation ". A chapter in "Fractional Derivatives an Their Applications . Part. 3: Systems analysis, implementation and simulation, systems identification and control." Editors: A. Le Mehauté, J. A. Tenreiro Machado, J. C. Trigeassou and J. Sabatier. UBooks, Augsburg, Germany, 2005. pp. 597-614. ISBN 3-86608-026-3.
  17. C. A. Monje, B. M. Vinagre\*, Y.Q. Chen, V. Feliu, P. Lanusse and J. Sabatier (2005). "Optimal tunings for fractional  $PI^{\lambda}D^{\mu}$ ". A chapter in "Fractional Derivatives an Their Applications. Part. 3: Systems analysis, implementation and simulation, systems identification and control." Editors: A. Le Mehauté, J. A. Tenreiro Machado, J. C. Trigeassou and J. Sabatier. UBooks, Augsburg, Germany, 2005. pp. 675-686. ISBN 3-86608-026-3.
  18. Dingyu Xue and YangQuan Chen\* (2005). "Iterative Learning Control of Uncertain Discrete-time Nonlinear Feedback Systems With A Control Saturater". A chapter in "Intelligent Systems at the Service of Mankind", Volume 2, Editors: Wilfried Elmenreich, J. Tenreiro Machado, Imre J. Rudas. UBooks, Augsburg, Germany, 2005. ISBN 978-3866080522.
  19. J. Ignacio Suarez, Blas M. Vinagre\*, José Eugenio Naranjo and YangQuan Chen (2005). "Validation of the Model of an Unmanned Autonomous Vehicle Used in Path-Tracking Tasks". A chapter in "Intelligent Systems at the Service of Mankind", Volume 2, Editors: Wilfried Elmenreich, J. Tenreiro Machado, Imre J. Rudas. UBooks, Augsburg, Germany, 2005. ISBN 978-3866080522.
  20. Zhen Song+, Pranav Sukthankar+, YangQuan Chen\*, Jason Gu (2005). "Control of Two Coupled Inverted Penduli by Progressive Fuzzy Logic Fusion ". A chapter in "Intelligent Systems at the Service of Mankind", Volume 2, Editors: Wilfried Elmenreich, J. Tenreiro Machado, Imre J. Rudas. UBooks , Augsburg, Germany, 2005. ISBN 978-3866080522.
  21. Ivo Petr<sup>s</sup>, YangQuan Chen\* and Blas M. Vinagre (2004). "Robust stability test for interval fractional order linear systems". Chapter 53, in Vincent D. Blondel and Alexander Megretski (Editors). "Unsolved problems in the mathematics of systems and control". Princeton University Press. Jul. 2004. Problem 6.5, Chapter 6, pp. 208-210. ISBN: 978-0-691-11748-5.
  22. J. I. Su<sup>a</sup>rez, B. M. Vinagre\*, A. J. Calder<sup>o</sup>n, C. A. Monje and Y. Q. Chen (2003). "Using Fractional Calculus for Lateral and Longitudinal Control of Autonomous Vehicles". Chapter in the Lecture Notes in Computer Science (LNCS). Springer Verlag. Vol.. [2809](#): Franz R. Pichler,

- Moreno-Diaz, R. et al. (Eds.) Part - Autonomous and Control System "Computer Aided Systems Theory- [EUROCAST 2003](#)". Feb. 2003. pp. 337-348. ISBN 978-3-540-20221-9.
23. YangQuan Chen\* and Adam L. Schwartz (2002). "RIOTS\_95 -- a MATLAB Toolbox for Solving General Optimal Control Problems and Its Applications to Chemical Processes". Chapter in Rein Luus Editor, "Recent Developments in Optimization and Optimal Control in Chemical Engineering", Transworld Research Publishers. 2002. pp. 229-252. ISBN 81-7736-088-4.
  24. J.-X. Xu\*, T. H. Lee and Yangquan Chen (2000). "Knowledge learning techniques and applications in discrete time control systems," in vol. III, Chapter 30, pp. 943-976, C. T. Leondes, (ed.), "Knowledge Based Systems Techniques and Applications," Academic Press, 2000. ISBN: 978-0124438750.
  25. J.-X. Xu\*, T. H. Lee, C. C. Hang and Yangquan Chen (1999). "Developments in Learning Control Systems," M. M. Gupta and N. K. Sinha (ed.), "Soft Computing and Intelligent Systems: Theory and Practice," Chapter 10, pp. 217-253, IEEE Press, 1999. ISBN 978-0126464900.
  26. Huifang Dou, Zhaoying Zhou, Yangquan Chen\*, Jian-Xin Xu and Jimmy J. Abbas (1998). "Robust Control of Functional Neuromuscular Stimulation System by Discrete-time Iterative Learning," in Z. Bien and Jian-Xin Xu (ed.), "Iterative Learning Control - Analysis, Design, Integration and Applications," pp. 351-370, Kluwer Academic Press, 1998. ISBN: 978-0792382133.
  27. Yangquan Chen\*, Jian-Xin Xu and Tong Heng Lee (1998). "High-order Iterative Learning Control of Discrete-time Uncertain Nonlinear Systems Using Current Iteration Tracking Error," in Z. Bien and Jian-Xin Xu (ed.), "Iterative Learning Control - Analysis, Design, Integration and Applications," pp. 83-103, Kluwer Academic Press, 1998. ISBN: 978-0792382133.

#### **Refereed Book Reviews and Guest Editorials**

1. YangQuan Chen\* and Yi Zhang. Book review on "Computational Intelligence in Control Engineering", Robert E. King, Marcel Dekker Inc., NY, 1999, 295pp. *International Journal of Robust and Nonlinear Control*. Vol. 14, No. 12, pp. 1081-1083. August 2004.
2. Y. Q. Chen\*, "Book Review: *Iterative Dynamic Programming* by Rein Luus", the book was published on January 27, 2000 by CRC Press, ISBN: 1584881488, Hardcover, 344 pages. *The International Journal of Robust and Nonlinear Control*, vol. 11. no. 14, pp.1397-1398, 2001.
3. Changpin Li\*, YangQuan Chen, Igor Polubny and Blas Vinagre. "Introduction to Special Issue: *Fractional Dynamics and Control*" **International Journal of Bifurcation Chaos**, Special Issue on "Fractional Dynamics and Control", April issue of 2012. (4 pages) DOI: 10.1142/S0218127412020026
4. Editorial. Guest – Editors: Virginia Kiryakova, Yury Luchko, Francesco Mainardi, Blas Vinagre, Igor Podlubny, YangQuan Chen. *Special Issue Dedicated to 80th Anniversary of Professor Rudolf Gorenflo. Fractional Calculus and Applied Analysis*. Volume 14 / 2011 DOI: 10.2478/s13540-011-0001-0.
5. Li, Changpin; Chen, YangQuan; Kurths, Juergen. *Fractional calculus and its applications*. **Philosophical Transactions of the Royal Society a-Mathematical Physical and Engineering Sciences** Volume: 371 Issue: 1990 Published: MAY 13 2013. DOI: 10.1098/rsta.2013.0037
6. Clara M. Ionescu, Riccardo Caponetto, YangQuan Chen. Special Issue "'Fractional Order Modelling and Control in Mechatronic Applications". **Mechatronics**, Volume 23, Issue 7, October 2013, Editorial. Pages 739-740. <http://dx.doi.org/10.1016/j.mechatronics.2013.10.004>

#### **Refereed Journal Papers:**

##### **To appear:**

- Jianxiong Cao, Changpin Li, YangQuan Chen. "High-order approximation to Caputo derivatives and Caputo-type advection-diffusion equations (ii)" **Fractional Calculus and Applied Analysis** (accepted March 2015)

- Wei Yu, Ying Luo, YangQuan Chen and Youguo Pi. “Frequency Domain Modeling and Control of Fractional Order System for Permanent Magnet Synchronous Motor Velocity Servo System” **IET Control Theory and Applications** (conditionally accepted March 2015)
- Y. Qiu et al “Backstepping Dynamic Surface Control for Nonlinear Systems with Time-varying Output Constraints.” **IET Control Theory and Applications** (conditionally accepted March 2015)

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1. Ying Luo, Tao Zhang, Li Zhou, YangQuan Chen. “Pre-filtering and head-dependent adaptive feed-forward compensation for translation vibration in hard-disc-drive.” **Mechatronics**, In Press, Corrected Proof, Available online 6 March 2015  
<http://www.sciencedirect.com/science/article/pii/S0957415815000124>
2. D Chen, YQ Chen, D Xue. “Fractional-order total variation image denoising based on proximity algorithm.” **Applied Mathematics and Computation** 257, 537-545  
<http://www.sciencedirect.com/science/article/pii/S0096300315000260> (April 2015)
3. Y Xu, YP Tian, YQ Chen. “Output consensus for multiple non-holonomic systems under directed communication topology.” **International Journal of Systems Science** 46 (3), 451-463. March 2015. DOI: (online April 2013) <http://dx.doi.org/10.1080/00207721.2013.784821>
4. Y Naranjani, Y Sardahi, YQ Chen, JQ Sun. “Multi-Objective Optimization of Distributed-Order Fractional Damping.” **Communications in Nonlinear Science and Numerical Simulation**. Volume 24, Issues 1–3, July 2015, Pages 159–168.  
<http://www.sciencedirect.com/science/article/pii/S1007570414005723> (Jan. 2015 online)
5. C Yin, B Stark, YQ Chen, S Zhong, E Lau. “Fractional-order adaptive minimum energy cognitive lighting control strategy for the hybrid lighting system.” **Energy and Buildings** 87, 176-184  
<http://www.sciencedirect.com/science/article/pii/S0378778814009670> (Jan. 2015)
6. C Yin, YQ Chen, S Zhong. “Fractional-order sliding mode based extremum seeking control of a class of nonlinear systems.” **Automatica** 50 (12), 3173-3181  
<http://www.sciencedirect.com/science/article/pii/S0005109814004087> (Dec. 2014)
7. Z Bai, YQ Chen, H Lian, S Sun. “On the existence of blow up solutions for a class of fractional differential equations.” **Fractional Calculus and Applied Analysis** 17 (4), 1175-1187  
<http://link.springer.com/article/10.2478/s13540-014-0220-2> (Dec. 2014)
8. SC Lee, Y Li, YQ Chen, HS Ahn. “ $H^\infty$  and Sliding Mode Observers for Linear Time-Invariant Fractional-Order Dynamic Systems With Initial Memory Effect.” **Journal of Dynamic Systems, Measurement, and Control** 136 (5), 2014. doi: <http://dx.doi.org/10.1115/1.4027289> (Sept. 2014)
9. Z Bai, S Sun, YQ Chen. “The Existence and Uniqueness of a Class of Fractional Differential Equations”. **Abstract and Applied Analysis**. Volume 2014 (2014), Article ID 486040, 6 pages.  
<http://dx.doi.org/10.1155/2014/486040>
10. H Ding, C Li, YQ Chen. “High-order algorithms for Riesz derivative and their applications (II).” **Journal of Computational Physics**.  
<http://www.sciencedirect.com/science/article/pii/S0021999114004148> (June 2014)
11. NV Hoffer, C Coopmans, AM Jensen, YQ Chen. “A survey and categorization of small low-cost unmanned aerial vehicle system identification”. **Journal of Intelligent & Robotic Systems** 74 (1-2), 129-145 <http://link.springer.com/article/10.1007/s10846-013-9931-6>
12. AM Jensen, DK Geller, YQ Chen. “Monte Carlo Simulation Analysis of Tagged Fish Radio Tracking Performance by Swarming Unmanned Aerial Vehicles in Fractional Order Potential Fields.” **Journal of Intelligent & Robotic Systems** 74 (1-2), 287-307  
<http://link.springer.com/article/10.1007/s10846-013-9949-9>

13. J Han, YQ Chen. "Multiple UAV formations for cooperative source seeking and contour mapping of a radiative signal field." **Journal of Intelligent & Robotic Systems** 74 (1-2), 323-332  
<http://link.springer.com/article/10.1007/s10846-013-9897-4>
14. J Cao, C Li, YQ Chen. "Compact difference method for solving the fractional reaction–subdiffusion equation with Neumann boundary value condition." **International Journal of Computer Mathematics**, Volume 92, Issue 1, 2015. DOI:  
<http://dx.doi.org/10.1080/00207160.2014.887702> (April 2014 online)
15. C Zeng, Q Yang, YQ Chen. "Lyapunov techniques for stochastic differential equations driven by fractional Brownian motion." **Abstract and Applied Analysis**. Volume 2014 (2014), Article ID 292653, 9 pages. <http://dx.doi.org/10.1155/2014/292653>
16. YD Ma, JG Lu, WD Chen, YQ Chen. "Robust stability bounds of uncertain fractional-order systems." **Fractional Calculus and Applied Analysis** 17 (1), 136-153.  
<http://link.springer.com/article/10.2478/s13540-014-0159-3> (March 2014)
17. H Malek, YQ Chen. "BICO MPPT: A Faster Maximum Power Point Tracker and Its Application for Photovoltaic Panels." **International Journal of Photoenergy**. Volume 2014 (2014), Article ID 586503, 9 pages <http://dx.doi.org/10.1155/2014/586503>
18. J Cao, S Zhou, DJ Inman, Y Chen. "Chaos in the fractionally damped broadband piezoelectric energy generator." **Nonlinear Dynamics**, 1-15 <http://link.springer.com/article/10.1007/s11071-014-1320-6> (March 2014)
19. J Han, L Di, C Coopmans, YQ Chen. "Pitch Loop Control of a VTOL UAV Using Fractional Order Controller." **Journal of Intelligent & Robotic Systems** 73 (1-4), 187-195  
<http://link.springer.com/article/10.1007/s10846-013-9912-9> (Jan. 2014)
20. C Coopmans, AM Jensen, YQ Chen. "Fractional-Order Complementary Filters for Small Unmanned Aerial System Navigation." **Journal of Intelligent & Robotic Systems** 73 (1-4), 429-453 <http://link.springer.com/article/10.1007/s10846-013-9915-6> (Jan. 2014)
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3. Fudong Ge, YangQuan Chen, Chunhai Kou. "Regional controllability of anomalous diffusion generated by the time fractional diffusion equations." **ASME IDETC/CIE 2015**, Boston, Aug. 2-5, 2015 (accepted) DETC2015-46697.
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