
Curriculum Vitae

THOMAS W. O'DONNELL, Ph.D.

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March 1, 2011

1 Academic Appointments

1.1 Current

- Jan 2010-*continuing*
The New School University; New York City
Part-Time Faculty, Graduate International Affairs (GPIA)
- March-June 2011
The Ohio State University; Columbus, Ohio
Visiting Professor, Special Seminar, International Studies Program

1.2 Previous

- Jan 2008-Jan 2010
Universidad Central de Venezuela; Caracas, Venezuela
Profesor Asociado, Centro de Estudios del Desarrollo (UCV-Cendes), Caracas
- Jan - Nov 2008
U.S. Fulbright Scholar (Research), Venezuela
Bureau of Educational and Cultural Affairs, U.S. Department of State
Project: *A Comparative Study of the Political Economy of Oil in the Internal & External Policies of Bolivarian Venezuela and Algeria*
Local Sponsor: U. Central de Venezuela, Centro de Estudios del Desarrollo
- 2008-2009
The New School for Social Research, New York City
Research Scholar (non-resident), Graduate Economics Department
- 2004-2007
University of Michigan; Ann Arbor
Lecturer, Residential College (RC); affiliations:
Science, Technology & Society Program (STS)
Center for Middle East and North African Studies (CMENAS)
- Summers 2006, 2007
The New School University; New York City:

- Visiting Faculty, Graduate Program in International Affairs
- Summer 2005
 - The New School For Social Research; New York City
 - Visiting Professor, Graduate Department of Economics
- 2001-2004
 - University of Michigan; Ann Arbor:
 - Visiting Assistant Professor of Physics, LS&A, Residential College (RC)
- 2002
 - The University of Michigan, Ann Arbor
 - Extraordinary one-year salary grant, Ford Motor Co. Research Labs
 - Project: *Sustainable Mobility*
 - Post-Doctoral Research Fellow, Center for the Study of Complex Systems (CSCS)
- 2002
 - The University of Michigan, Ann Arbor
 - Project Grant: “Emergence in the Natural and Social Sciences, and Humanities”
 - Post-Doctoral Fellow, Rackham Summer Interdisciplinary Institute (RSII)
- 2001-*continuing*
 - Associate Member, Michigan Center for Theoretical Physics (MCTP)
- 2000-2001
 - Applied Physics Program, Prof. R. Clarke group, University of Michigan
 - X-Ray synchrotron work in exotic semiconductor materials
 - Advanced Photon Source, Argonne National Laboratory with:
 - AT&T, Murray Hill, NJ; Howard University Physics Department, DC
 - Post-Doctoral Research (50% appointment)

2 Education

2.1 Natural Science

- Ph.D., Experimental Nuclear Physics, University of Michigan. 2000
 - Thesis: *A Superconducting-Solenoid Isotope Spectrometer for Production of Neutron-Rich Isotopes* (^{136}Xe on C at 30MeV/u) <http://www.umich.edu/~twod/thesis>
 - Award: *Terwilliger Distinguished Dissertation Prize*, “Best thesis,” by Physics Faculty
- M.S., Physics, University of Michigan. 1991
- B.S., Physics, Honors, University of Michigan. 1988

2.2 Social Science

- Political Science, Canisius College, Buffalo, NY. 1969-70
- Political Science, China Studies, State University of NY at Buffalo. 1970-74

3 Publications

3.1 International Affairs & Political Economy

1. **Reinventing Bolivarian Democracy: His base in the poor eroding and oil revenues down, Hugo Chavez limits electoral democracy, autonomous unions and the press,** *In preparation.* Approx. 40 pp., 2011.

2. **The Decline of Venezuela’s Oil Sector Now Ties Bolivarian Foreign & Commercial Relations to Trends in Oil Price** *In preparation*. Approx. 30 pp., 2011.
3. **China’s Angst over Iran Sanctions: Beijing’s go-it-alone oil security could fail during any U.S.-Iran conflict**, *Op-Ed; Middle East Economic Survey, MEES-Vol53 n23, 7 June 2010*. http://www.umich.edu/~twod/writing/china_iran_sanctions_22mar10aa.pdf
4. Book Review: **International Relations of the Persian Gulf**, by F. Gregory Gause III; Cambridge University Press, 2010 *Middle East Journal, Summer 2010 Edition*. http://www.umich.edu/~twod/writing/mej_persian_gulf_gause_02jun10b.pdf
5. **The Political Economy of Oil in the U.S.-Iran Crisis: U.S. Oil-Security Interests vs. Iranian Regional Interests**, *Preprint, The New School, Grad. International Affairs; 2009*. http://www.gpia.info/files/u16/0_Donnell_2009-05.pdf
6. **Political Economy of the Globalized Oil Order: How ‘Objective Conditions’ Drove the OECD and OPEC from Confrontation to Collusion**, *ISA conference paper, 13 pp.+figures, NYC; 2009*.
7. **Global Oil to 2030: A Quantitative Assessment in the Context of International Affairs**, T.W. O’Donnell. *International Relations and Security Network (ISN) 2 May 2007*. <http://www.isn.ethz.ch/pubs/ph/details.cfm?lng=en&id=30696>
8. **The Political Economy of the U.S.-Iran Crisis: Oil Hegemony, Not Nukes, is the Real Issue**, T.W. O’Donnell. *Z Magazine V19, no.6, June 2006*. <http://www.zcommunications.org/the-political-economy-of-the-u-s-iran-crisis-by-tom-o-and-rsquo-donnell>
9. **Understanding the Washington-Tehran Deals: These on-again, off-again talks involve partial deals about the pacification of Iraq, not a ‘Grand Bargain’**, *Petroleum World for Latin America, Sunday Feature, 17Feb08; Updated: Z Magazine Online April 2008*. <http://www.zcommunications.org/understanding-the-washington-tehran-deals-by-tom-odonnell>
10. **The ‘New Nationalism’ Oil Strategy of Chavez and Mommer: Can China, Iran and International Oil Companies Enable Venezuela to Escape the Markets of ‘El Imperio’ and Reverse PDVSA Production Declines?** *ISA conference paper, 6 pp.+figures, NYC; 2009*.

3.2 Physics, peer reviewed (Full list on request: 38 papers)

- 38 “New experimental approach for heavy and superheavy element production”, M. Barbui, *et al*, *J. Modern Phys. E* **V. 18, No. 4** (2009) 1036104.
- 37 “Symmetry energies, pairing energies, and mass equations”, J. Jänecke and T.W. O’Donnell, *Nuclear Physics A* **781** (2007) 317-341.
- 36 “Damping mechanisms of high-lying single-particle states in ^{91}Nb ”, H.K.T. van ter Molen, *et al*, *Phys. Rev. C* **75, 014311** (2007).
- 35 “Isospin inversion and p-n pairing in self-conjugate nuclei $A = 58$ to 98 ”, J. Jänecke and T.W. O’Donnell, *Phys. Letters B* **V. 605, Issues 1-2**, 6 January 2005, Pages 87-94.
- 34 “Symmetry energies and the curvature of the nuclear mass surface” J. Jänecke and T.W. O’Donnell, *European Physics Journal* **v25** (2005) 79-80.

- 32 “Symmetry and pairing energies of atomic nuclei.” J. Jänecke, T.W. O’Donnell and V.I. Goldanskii. *Nuclear Physics A 728* (2003) 23-51.
- 31 “Isospin inversion in $N = Z$ nuclei and deuteron-like and α -particle-like structures.” J.Jänecke, T.W. O’Donnell, and V.I. Goldanskii, *Phys. Rev. C.66*, **024327** (2002).
- 29 “Measurement of L/K Ratio in ${}^7\text{Be}$ Electron Capture.” P.A. Voytas, C. Ternovan, M. Galeazzi, D. McCammon, J.J.Kolata, P. Santi, D.Peterson, V. Guimaraes, F.D.Becchetti, M.Y.Lee, T.W. O’Donnell, D.A. Roberts, S. Shaheen. *Phys. Rev. Letters* **88**, **012501** (2001).
- 23 “Experimental Apparatus for the Study of the Effects of Strong Longitudinal Magnetic Fields on the Dose Distribution of Clinical Photon and Electron Radiotherapy Beams.” D.W. Litzenberg, B.W. Fraass, D.A. McShan, J.M. Moran, T.W. O’Donnell, D.A. Roberts, R.D. Becchetti. *Phys Med Bio* **V46 no.5**, pp. **N105-N115**, (2001).
- 16 “Isotope Yields with a Solenoid-Based Fragment Mass Analysis System - Prospects for Exotic Isotope Studies in the $10 < Z < 30$ Range,” T.W. O’Donnell, F.D. Becchetti, J. Brown, J.W. Jänecke, M.Y. Lee, R.S. Raymond, D.A. Roberts, R.S. Tickle, H.C. Griffin, and R. Ronningen. *Nuclear Instruments and Methods in Physics Research A* **422** (1999) 513-517.

4 Public Lectures & Talks

4.1 Political Economy, International Affairs

4.1.1 2011

- **Latin American Studies, Masters of Arts Program, The Ohio State University** - Columbus, OH, May 18, 2011
Course Lecture: “Latin America in the Global Oil System”
- **New School University** - New York City, February 24, 2011
Public event: “Arab Democracy Uprisings: Causes, Prospects & Consequences”
Moderator & Organizer. Video: <http://www.gpia.info/egypt>
- **Association for International Development, The New School** - NYC, March 25, 2011
Talk: “Food or Motor Fuel? A Political Economy of High Food Prices and Shortages”
Invited panel: “Global Food Security and Human Rights”
- **Graduate Economics Department, New School University** - NYC, February 14, 2011
Course Lecture: “Venezuela: The Political Economy of Socialism under Hugo Chavez”
- **Latin America Program, Hudson Institute** - Washington, DC, February 9, 2011
Panel Talk: “The Petroleum Sector and Social Tensions in Venezuela”
Video: http://www.hudson.org/index.cfm?fuseaction=hudson_upcoming_events&id=824
- **Faculty Womans Club, University of Michigan** - Ann Arbor, February 7, 2011
Lecture: “One Global Barrel: From Oil Market to Geopolitics”
- **Water (Dis)courses Event: The New School** - NYC, February 6, 2011
Talk: “Oil Under Water: Pollution and Dykes of Venezuela’s Lake Maracaibo”
Video: <http://waterdiscourses.wordpress.com/2011/02/08/we-have-video>

4.1.2 2010

- **Physics Department, University of Michigan** - Ann Arbor, October 22, 2010
Lecture: “Life Aftr Grad School: The Global-Era Energy System”
- **Human Security Workshop, The New School** - NYC, October 7, 2010
Talk: “The Global-Era Collective Energy Security System”
- **The Middle East Institute** - Washington, DC. September, 22 2010
Lecture: “China’s Angst Over Iran: The Energy Nexus”
<http://www.mei.edu/Events/Calendar/tabid/504/ItemId/284/Mid/1423/ctl/ViewDetail/Default.aspx> Video: <http://www.youtube.com/watch?v=VeQTyX01FhI>
- **Middle East Studies Program** - Ohio State University, Columbus, OH, June 26, 2010
Daylong Workshop: “Oil in the Global Economy”
http://www.ced.osu.edu/Global_Oil
- **York University, Historical Materialism Conference** - Toronto, May 13, 2010
Talk: “Failures of the Bolivarian Model: A class analysis of Venezuelan elections on 2Dec07, 23Nov08, 2Feb09 and (30Sept10)”
- **Latin American Student Club: The New School** - NYC, May 3, 2010
Lecture: “The Political Economny of Petroleum in Bolivarian International Affairs”
- **Latin American Program, The Hudson Institute** - Washington, D.C., 25 April 2010
Talk: “Chinas Energy Policy in Latin America” Video: http://www.hudson.org/index.cfm?fuseaction=HUDSON_UPCOMING_EVENTS&ID=766
- **The Left Forum, Pace University** - New York City, March 20, 2010
Talk: “Obama-Clinton’s ‘Crippling Sanctions’ v. Ahmadinejad-Khameneis Nukes: What Deal Could Avert Catastrophe?”

4.1.3 2009

- **Hudson Institute** - Washington, D.C., Sept. 22, 2009
Petro Caribe and Petro Diplomacy of Hugo Chavez.
- Panel on Central American Democracy with Roberto Flores Bermdez, Diana Negroponte, Eduardo Ulibarri, and Regina Vargo. Moderated by Jaime Daremblum.
Video: http://www.hudson.org/index.cfm?fuseaction=HUDSON_UPCOMING_EVENTS&ID=707
- **Waterpower XVI** - Spokane, Washington, July 28, 2009
- Keynote speaker, Opening session: *The world’s primary energy resources: What’s available and where; now and in the future.*
- Speaker and panelist, Executive Roundtable and Luncheon
- **School of Natural Resources and Environment** - U. Michigan, Ann Arbor. Oct. 2, 2009
Plentiful oil, congestion and the failure of bio-alternatives - What is to be Done?
- Faculty Lunch Lecture in Environmental Ethics.
- **Middle East Studies & Latin Am. Studies** - Ohio State U., Columbus. Sept. 30, 2009
- Two public lectures: *i) Oil in the U.S.-Iran Crisis and ii) Oil in Hugo Chavez’ Bolivarian domestic and foreign policies.*

- **Latin American Studies Center** - U. Michigan, Ann Arbor, Sept. 28, 2009
- Invited lecture *The International Policy of Chavez: Can Iran, Russia, China and the International Oil Companies save Venezuela from the global market of 'El Imperio'?*
- **Center for Middle East & N. African Studies** - U. Michigan, Ann Arbor, Sept. 28, 2009.
- Public lecture: *Oil in the U.S-Iran Crisis: U.S. oil-security interests vs. Iranian regional interests.*
- **India China Institute** - The New School University, New York City, April 20, 2009
- Invited talk: *China's Energy Policy.*
- **Left Forum 2009** - Pace University, New York City, April 17-19, 2009
- Panel: Obama and Iran: A New Beginning? *With Ruth Indeck (Chair), Ervand Abrahamian, Reza Ghorashi and Manijeh Saba.*
- **Asociación Venezolano de los Hidrocarburos (AVHI)** - Caracas, April 15, 2009
- Invited Lecture : *The Global Political Economy of Petroleum and Bolivarian Venezuela.*
- **Embajada de Holanda** - Caracas, March 12, 2009
- Luncheon talk, with Luís X. Grisanti (Pres. AVHI, Venez. Hydrocarbon Assoc.): *A Retrospective: Domestic Struggles Over Venezuelan National Oil.*
- **Residence of Ambassador of Norway** - Caracas, February 10, 2009
- Breakfast talk: *The Petroleum Sector in Venezuela: Present and Future.*
- **The New School University GPIA & ISN-ETH Zurich** - New York City, March 6, 2009
- Seminar, Economics of Security Study Group: *Global warming & congestion, plentiful oil & failure of bio-alternatives: What is to be done?.*
- **International Studies Association (ISA) Convention** - New York City, Feb. 15-18, 2009
- Panel, Oil and Natural Resources: *The Political-Economy of the Globalized Oil Order: How Objective Conditions Drove the OECD and OPEC from Confrontation to Collusion and a Market-Centered System Resting on U.S. Gulf Hegemony.*
- Panel, Latin America and the World Economy: *The New Nationalism Oil Strategy of Chavez and Mommer: Can China, Iran and International Oil Companies Enable Venezuela to Escape the Markets of "El Imperio" and Reverse PDVSA Production Declines?*
- **Centro de los Estudios del Desarrollo - Universidad Central de Venezuela (CEDES-UCV)** - Caracas, Jan. 22, 2009
- Lecture: *La nueva PDVSA, antes y durante la crisis mundial: El petróleo en el desarrollo y las relaciones exteriores de la Venezuela bolivariana.*
- **Escuela de Derecho, Universidad Central de Venezuela (UCV)** - Caracas, January 20, 2009
- Student-organized lecture: *El petr?leo en el desarrollo y las relaciones exteriores de la Venezuela bolivariana.*

4.1.4 2008

- **Asociación Fulbright de Venezuela** - Hotel Tamanaco, Caracas, November 11, 2008
- Invited talk, with José Toro Hardy (Fmr. Director PDVSA): *La crisis y el petróleo en las relaciones exteriores entre los EEUU y Venezuela.*

- **University of Massachusetts at Amherst** - Amherst, Mass, Sept. 30 & Oct. 1, 2008
 - Political Economy Research Institute (PERI): *Iran, Iraq and Venezuela: The Political Economy of Globalized Petroleum.*
 - Environmental Institute: *Global Warming, Plentiful Oil and the Failure of Bio-Alternatives: What To Do?*
- **Universidad de Valle, Facultad de Ciencias Naturales e Exactas** - Cali, Colombia, June 25-27, 2008
 - Invited speaker, three-part series: Análisis Situación Mundial Del Petróleo:
 - i. *Venezuela, Irán e Irak: La estrategia hegemónica petrolera de los Estados Unidos.*
 - ii. *Ambiente, Biocombustibles y el Precio de Petróleo* (VII Coloquio sobre Investigación Ecológica en el Departamento de Biología)
 - iii. *Conversatorio.*
- **Universidad de Cauca** - Facultad de Ciencias Naturales, Popayán, Colombia, June 23, 2008
 - Lecture: *Ambiente, Biocombustibles y el Precio de Petróleo.*
- **Venezuelan Fulbright Association** - Hotel Tomanaco, Caracas, June 3, 2008
 - Lecture: *La Economía Política del Petróleo en Venezuela: Facciones de OPEP, Los EEUU y China.*
- **India China Institute** - The New School University, New York City, March 18, 2008
 - Roundtable: *China's petroleum 'Go Abroad!' policy, and its national oil companies in globalized markets.*
- **Left Forum 2008** - Cooper Union, New York City, March 14-16, 2008
 - Panel: The Iran Crisis & Continuing Threat of War Post-NIE: *With: R. Ghorashi, F. Farbod, F. Moghadam, (chair, discussant).*

4.1.5 2007

- *Chair & Discussant*
 “The U.S.-Iran Nuclear Crisis”
Center for Middle East & N. African Studies (CMENAS)
 University of Michigan, Ann Arbor. 9 November 2007.
- “The U.S.-Iran Crisis: Headed for Disaster?”
Graduate Program in International Affairs (GPIA), Public Panel
 The New School University, Milano School, New York City. 9 December 2007
- “The U.S.-Indian Nuclear Agreement in the Media”
Imagining Global Asia Project
 The New School University, Milano School, New York City. 7 December 2007
- “The Political Economy of Iranian Oil”
Middle East Studies Association (MESA), Annual North American Conference
 Montreal, Canada. 17 November 2007
- “The Global Political Economy of Oil & the ‘New Nationalism’”
Middle East Studies Center & Center for Latin American Studies
 Ohio State University, Columbus. 13 November 2007

- “How Exactly is the Iraq War ‘All About Oil’?”
Energy Institute (MMPEI), ”Energy Day”
University of Michigan, Ann Arbor. 15 September 2007
- “The U.S.-Iran Crisis”
Student-Faculty Teach In
Green Mountain College; Poultney, Vermont. 1 May 2007.
- “U.S., Iran, Israel: What’s Ahead?”
2007 Left Forum URPE Panel
Cooper Union College, New York, NY. 10 March 2007
- “The Global Political Economy of Oil”
National Vehicle and Fuel Emissions Laboratory
U.S. Environmental Protection Agency (EPA)
Two invited talks
Ann Arbor, MI. 16 February & 16 March 2007.
- “Report on Faculty Exchange Visit to University of Algiers & Economics Faculty”
Center for Middle East and North African Studies (CMENAS)
Faculty year-end reception
The University of Michigan, Ann Arbor. 18 January 2007.
- “The Political Economy of the New Global Oil Order and U.S. Policy”
Michigan Memorial Phoenix Energy Institute (MMPEI)
Inaugural Workshop
The University of Michigan, Ann Arbor. 18 January 2007.

4.1.6 2006

- *The Global Political Economy of Oil: U.S. Policy in the Persian Gulf*
Study Group on the Economics of Security: Security Policy Five Years After 9/11
Center for Security Studies (ETH Zurich)
Graduate Program in International Affairs & World Policy Institute
The New School, New York City. 17 November 2006.
- “MENA States in the New Globalized Oil System: Re-Privatizing Nationalized Oil Fields, and the New OPEC+OECD International Energy Forum Secretariat (IEFS) in Riyadh”
Middle East Studies Association (MESA)
2006 National Conference; Boston, MA. 18-21 November 2006.
- “The Global Political-Economy of Oil and U.S. Persian-Gulf Policy Since the OPEC Revolution”
Center for Security Studies, The Mershon Center; sponsored by Middle East Institute
Ohio State University (OSU), Columbus, OH. 17 November 2006.
- “From Monopoly-Capitalist to Global-Capitalist Power in the Oil Order: The IEFS; Iran, Iraq and Other Features” and
“The U.S.-Iran Crisis: Persian-Gulf Oil Hegemony, not Nukes, is the Issue”
Rethinking Marxism Conference
UMass, Amherst, Amherst, MA, 26-28 October 2006.

- *Chair, Transportation Plenary Session*
 “Alternative Transportation Perspectives” 26th North American Conference
U.S. Association for Energy Economics (USAEE/IAEE)
 Ann Arbor, MI. 24-27 September 2006.
- *First Workshop of the Agenda for Social Research Related to Long-Term Energy Options (AS-RELEO) Project*
 Proposals Discussant Panel
Swiss Federal Institute of Technology (ETH)
 Zürich, Switzerland. 5-6 October 2006.
- *Conference Program Co-Chair*
 26th North American Conference, “Energy in a World of Changing Costs and Technologies”
U.S. Association for Energy Economics (USAEE/IAEE)
 Ann Arbor, MI. 24-27 September 2006.
- “The Political Economy of Oil: The U.S. and the Middle East”
Summer Workshop: Middle East - U.S. Intersections
 Middle East Studies
University of California at Los Angeles (UCLA), Los Angeles, Ca. 1 August 2006.
- “The U.S.-Iran Crisis: Oil Hegemony, Not Nukes at Issue”
PIER Summer Institute: Geopolitics of Oil in the Middle East
 Middle East Studies
Yale University, New Haven, Ct. 12 July 2006.
- “The Iran Crisis: Fact vs. Fiction”
Public Forum: with E. Abrahamian, V. Baron & B. Nakhai.
 Sponsored by: Campaign Against Military Sanctions and Intervention in Iran (CASMI)
Judson Church, Washington Square; New York City. 21 June 2006.
Aired on Pacifica Radio, New York City.
- “Oil, Nukes, Mullahs, Democracy: Political Economy of Iran Crisis”
The Brecht Forum with F. Farbod, R. Ghorashi & F. Moghadam.
 451 West Street, Greenwich Villiage; New York City. 16 May 2006.
Aired on Pacifica Radio, New York City.
- “Global Oil and U.S. Policy since WW II”
Speaker, Political-Economy Seminar (Econ801, Prof. A. Shaikh).
The New School for Social Reserach, New York City. 29 March 2006.
- “European Union Energy & Transport: The Revolution Postponed?”
Colloquium Institute for the Study of Europe, and
 Center for Energy and Maritime Transportation.
Columbia University, New York City. 28 March 2006.
- “The new globalized oil system: Iran, Iraq & reproducing U.S. hegemony”
Public Lecture sponsored by: Center for Middle East and North African Studies,
 International Institute
University of Michigan, Ann Arbor. 15 March 2006.

- “Political Economy of the U.S.-Iran Crisis”
2006 Left Forum with F. Moghadam & E. Abrahamian.
Cooper Union University, New York City. 11 March 2006.
Aired on Pacifica Radio, New York City.
Video DVD produced by Z Publications.
- “The New Globalized Oil Order: Iraq, Iran, and US Strategy for the Middle East”
Public Lecture Event sponsored by: Departments of Anthropology & Near Eastern and Asian Studies, Committee for Peace and Justice in the Middle East, Center for Peace and Conflict Studies, and American-Arab Anti-Discrimination Committee.
Wayne State University. Detroit, MI. 1 February 2006.

4.1.7 2005

- “Algeria 1945 to Present - A Brief View”
New World Agricultural and Environmental Group.
The University of Michigan, Ann Arbor, Mi. 8 December 2005.
- “The Global Oil System and the Iraq War”
Our Common Futures Lecture Series (PitE273)
School of Natural Resources and Environment
The University of Michigan, Ann Arbor, MI. 14 November 2005.
- “The Globalized Energy Order”
Engineers Without Borders Lecture Series
BlueLab: Better Living Using Engineering. School of Engineering
The University of Michigan, Ann Arbor, MI. 31 October 2005.
- “A Convergence of E.U. & U.S. Energy and Transport Infrastructure Trajectories? – A Case Study in the New Energy Globalization.”
Faculty/Ph.D. Seminar, School of Natural Resources and Environment (SNRE)
The University of Michigan, Ann Arbor, MI. September 30, 2005.
- “The Global Oil System: Resources, Technology and the New U.S. Policy,”
CNS Anniversary Conference, Celebrating work of James O’Connor
York University, Toronto, 22-24 July 2005.
- “Global Oil and U.S.-E.U. Contention,”
2005 Left Forum Panel with Michael Klare and Michael Tanzer,
City College of New York Graduate Center, New York. 15-16 April 2005.
- “Oil-Market Control Institutions - The US-IEA Plus OPEC Collaboration in the New Permanent Secretariat of the International Energy Forum (IEF) in Riyadh,”
Faculty-Graduate Seminar, Department of Political Science
York University, Toronto. 4 March 2005.
- “The Geography and Politics of a Resource: Oil in the Middle East,”
Introduction to Arab Culture and Language. AAPTIS 331 course (Arabic, Armenian, Persian, Turkish, and Islamic Studies),
The University of Michigan, Ann Arbor. 3 February 2005.

4.1.8 2004

- “The Global Oil System: Resources, Technology and the New US Strategy,”
School of Natural Resources and Environment (SNRE), Faculty/PhD Friday Seminar.
The University of Michigan, Ann Arbor. December 10, 2004.
- “El Sistema Global del Petróleo: Recursos, Tecnología y la Nueva Fase de la Hegemonía estadounidense,”
Conferencia de la Facultad Biológica y Ciencia,
Universidad del Valle, Cali, Columbia. 27 September 2004.
In Spanish, via video-conference, from University of Michigan, Duderstadt Media Union.
- “The IEA Cartel, Oil-Price Swing States, and U.S. Oil Hegemony: How ‘Cheap Oil’ Remakes the World in America’s Image,”
Global Studies Association Third Annual Conference; Globalization, Empire and Resistance,
Brandeis University. Boston, MA, 23-25 April 2004.
- “Are the US and EU on Different Trajectories in Their Energy and Transportation Sectors?”
New World Agricultural and Environmental Group,
The University of Michigan, Ann Arbor. 13 January 2004.

4.1.9 2003

- “Globalism and the Information Revolution: Emergence of new U.S. class forces seen in Pro- and Anti-Iraq-War Camps,” *Rethinking Marxism Conference*,
U. Mass, Amherst. 22 November, 2003.
- “The US-EU Infrastructure Divide: A Cross-Atlantic Clash of Transportation, Energy & Environmental Cultures,” **Society for Social Studies of Science (4S) 2003 Meeting**,
Atlanta, GA. October, 2003.

4.2 Philosophy, Physics, Information Theory, Sociology, History & etc.

- “Quantum Computers and Reality: Deutsch’s Anti-Positivist Campaign for Explanation, Apart From His Many-Worlds Interpretation,”
Forum on the History of Physics,
American Physical Society (APS) Conference, Joint Meeting of Nuclear and Astrophysics Sections,
Albuquerque, NM. April 2002.
- “Symmetry & Pairing Energies of Atomic Nuclei, & Quartet-Structures in $N \approx Z$ Nuclei,”
American Physical Society Conference, Joint Meeting of Nuclear and Astrophysics Sections,
Albuquerque, NM. April 2002.
- “Phase Transition in Computing Cost of Over-Constrained NP-Complete 3-SAT Problems,”
American Physical Society, March Meeting,
Indianapolis, IN, March 2002.
- “Marx, Computers and the End of Industrial Unionism,”
The American Sociological Association (ASA) National Convention.
Washington, D.C. August, 2000.

- “Twentieth-Century American Wars,” Invited speaker, three classes
University of Michigan Department of History.
Ann Arbor, MI, Fall 1999

5 Teaching & Syllabi

1. May 2011
From Saudi Arabia to Venezuela: Energy Resources, Market Factors & Conflicts
The Ohio State University, Columbus, OH, International Studies
http://www.umich.edu/~twod/oil_osu/flyer_osu.pdf
2. Spring 2011
Geopolitics of Global Oil
The New School, NYC. Graduate International Affairs
http://www-personal.umich.edu/~twod/oil_s2011
3. Spring 2011
Environmental Economics
The New School, NYC. Lang College, Environmental Program
<http://www-personal.umich.edu/~twod/environ/>
4. Spring 2010, Fall 2011
Latin America in Development
The New School, NYC. Graduate International Affairs
<http://www-personal.umich.edu/~twod/latam-f2010>
5. Summer 2007
Global Energy in Crisis: The Global Oil System, the US, EU and Middle East
The New School, NYC. Graduate International Affairs
<http://www.umich.edu/~twod/oil-ns>
6. Fall 2006
Oil, Nukes, Democracy: U.S.-Iran Relations
U. Michigan: Middle East & N. African Studies; History; AAPTIS; RC.
<http://www.umich.edu/~twod/courses>
7. Fall 2006, 05, 04
Energy and the Environment
U. Michigan: RCNaturalSci 264,; Program in the Environment 264
& Urban Planning 264, University Michigan.
<http://www.umich.edu/~twod/energy>
8. Summer 2006
Energy in Crisis
The New School, NYC. Graduate International Affairs
<http://www.umich.edu/~twod/ns-oil>
9. Winter 2006, 04, 03, 02; Fall 2001
Steam Engines % Computers: From Industrial Proletarians to Information Workers
Residential College (RC), U. Michigan.

Senior Seminar, RC Social Science 460, History 498, Sociology 495
<http://www.umich.edu/~twod/steam>

10. Winter 2005, 2001
Social Dimensions of Science, Technology and Medicine: Lectures on the history of technology & class formation from mid-feudalism to Information Revolution (1000-2000 AD)
Residential College (RC), U. Michigan. RC
SocialSci 260; Science, Technology & Society (STS). Co-taught.
http://www.umich.edu/~twod/sof/sts_275.html
11. Summer 2005
The Global Oil System and the Middle East
New School for Social Research: Graduate Economics Dept.
<http://www.umich.edu/~twod/oil>
12. Fall 2005
The Global Oil System and the Middle East
U. Michigan: Middle East & N. African Studies; History; RC, Geology,
<http://www.umich.edu/~twod/oil>
13. Winter 2004
Global Political Economy of Oil and the Iraq War
Residential College mini research course, U. Michigan
Special Topics RC Inter-Divisional 350, & UROP 260.
<http://www.umich.edu/~twod/oil2004>
14. Winter 2004
Iraq: One Year Later
Residential College mini research course, U. Michigan
Special Topics RC Inter-Divisional 350. Co-taught.
<http://www.umich.edu/~twod/iraq>
15. Fall 2001
The Intellectual History of Information, 1680–2001: A Story of Mathematics, Logic, Philosophy, Physics and Computer Science
Residential College (RC), U. Michigan, First-Year Seminar.
http://www.umich.edu/~twod/sof/rc-fys_index.html

6 Professional & Academic Societies

- Middle East Studies Association (MESA)
- United States Association for Energy Economics (USAEE) & International Association for Energy Economics (IAEE)
- American Physical Society (APS)
- Union for Radical Political Economy (URPE)

7 Languages

7.1 Human

- Spanish, fluent
- Chinese (Mandarin), 2.5 years
- Some French (Reading)

7.2 Machine

- Interactive Data language (IDL), visualization, data reduction and simulation language, expert level.
- C, C++, Fortran, HTML, LaTeX, etc., general competence.
- Specialized data acquisition and analysis languages used at national laboratories for nuclear physics experiments, ranging from assembly-like languages (XSYS), to Fortran-like (SARA), to GUI-driven (Exceed).

8 Professional & Consulting Projects (Environmental, Energy, Nuclear Medicine, Radiation Safety)

1. 2007
Geopolitical Consultant: petroleum private sector
2. 2003-2005
Health Physicist, oversight responsibilities for:
 1. Operation and Decommissioning of Ford Nuclear Reactor at Phoenix Memorial Program
 2. Engineering/North Campus radioactive research licensing, training, and monitoring
The University of Michigan, Ann Arbor (50% appointment)
3. 2000-2001
Consulting Physicist for installation plan and calculations:
BigSol, 36cm-bore Superconducting Solenoid device for production and collection
of new, exotic neutron-rich isotopes and new heavy elements
Texas A&M University (TAMU) Cyclotron Institute, College Station, TX
4. 1993-94, 1995
Consulting Physicist ($\geq 50\%$).
Special projects, modeling of doses, airborne radioisotope dispersal, accident remediation
U. Michigan Medical School and Hospital
5. 1991-1992
Consulting Physicist, Positron Emission Tomography (PET) Cyclotron (50%)
With D. Norton, P.E., Chief Engineer, University of Michigan Medical School
Gaseous ($^{11}\text{CO}_2$) radioactivity containment project
 1. Model and design ≈ 1 Mega-\$ radioactivity containment systems
 2. Oversight of contractors, and commissioning with Chief Engineer

6. 1990-1991
 Commissioning and Evaluation Group (Engineering, Physics)
 University of Michigan Management and Design Department, Medical School
 Dean's 20-Year Forecast Project
 Develop thermodynamic-efficiency and useful-lifetime testing for
 \approx 2-million-ft² bio-medical research facilities
 Project head: D. Norton, P.E.

7. 1990-1991
 Consulting Physicist, University of Michigan Medical School Facilities and Design Office,
 Medical School Laboratories air-quality study. Director: H. Beaumont.

8. 1989-1990 Consulting Physicist. *ibid.*
 Evaluation of U. Michigan nuclear research reactor waste-water treatment proposals
 For Director, Engineering Services: J. Janvesa, P.E.

9. 1988-1989 *ibid.*
 Analysis of automated fire suppression and emergency ventilation system failures
 Material Science Laboratories, University of Michigan.

10. 1988-1989 *ibid.*
 1. Heat-load analysis, redesign of environmental systems for Ancient Papyrus Archives.
 2. Design & construction-oversight of winter 'free cooling' systems in Graduate (Hatcher) Libraries.
 3. Redesign of trace-metal-free seawater/environmental laboratory, Department of Geology

11. 1986-1987
 Physics Department research Cryogenics Laboratory
 Responsible for liquefaction of ⁴He & repair, optimization of ultra[low temperature devices
 Prof. K. Terwilliger, Associate Chair for Research (50%).

12. 1982-1991
 Self-Employed: Engineering and skilled-trades services:
 1. Large building energy heat-load assessments
 2. Maintain & operate industrial-sized steam boilers
 3. Maintain & operate LiBr steam-absorption & freon refrigeration systems,
 pneumatic and electric controls, computer control and monitoring systems,
 ventilation (HVAC), cooling tower water treatment.

13. 1981-1982
 Detroit Medical Center
 Computer-controlled HVAC and emergency power-generation systems. control systems