

# Manh-Huong Phan



## Manh-Huong Phan

Full Professor of Physics

Director, Laboratory for Advanced Materials and Sensor Technologies

University of South Florida, Tampa, FL 33620

Ph: 813-974-4322; E-mail: phanm@usf.edu

URL: <http://shell.cas.usf.edu/~phanm/>

## Professional Preparation

- 2000: B.S. (Solid State Physics) Hanoi National University, Vietnam
- 2003: M.S. (Applied Physics) Chungbuk National University, South Korea
- 2006: Ph.D. (Engineering Physics) University of Bristol, United Kingdom

## Appointments

- 2019-present: Full Professor (*Permanent*), Physics Dept., University of South Florida, USA
- 2015-2019: Associate Professor, Physics Dept., University of South Florida, USA
- 2010-2015: Assistant Professor (*Research*), Physics Dept., University of South Florida, USA
- 2008-2010: Senior Research Associate, Physics Dept., University of South Florida, USA
- 2006-2007: Postdoctoral Fellow, ACCIS, University of Bristol, UK

**Publications** (*selected from over 270 peer-reviewed publications*), *h-index*: **45** from Google Scholar:

- “Giant Magnetoimpedance Materials: Fundamentals and Applications” -**H. Phan\*** and H. X. Peng, Invited review paper in **Progress in Materials Science** **53**, 323 (2008); over **700** citations - 5 year impact factor: **33.5**.
- “Review of the Magnetocaloric Effect in Manganite Materials”-**H. Phan\*** and S. C. Yu, Invited review paper in **Journal of Magnetism and Magnetic Materials** **308**, 325 (2007); over **1000** citations - *the most cited article of the year 2012 in this journal*.
- “Exchange Bias Effects in Iron Oxide Based Nanoparticle Systems (Featured Review Article)” - **H. Phan\***, J. Alonso, H. Khurshid, P. Lampen-Kelley, S. Chandra, K. Stojak, Z.N. Porshokouh, R. Das, Ò. Iglesias, and H. Srikanth, **Nanomaterials** **6**, 221 (2016).
- “A new contactless magneto-LC resonance technology for real time respiratory motion monitoring” - O. Thiabgoh, T. Eggers, and **H. Phan\***, **Sensors and Actuators A** **265**, 120 (2017).
- “Cooling achieved by rotating an anisotropic superconductor in a constant magnetic field: A new perspective” - **H. Phan\*** and D. Mandrus, **AIP Advances** **6**, 125022 (2016).
- “Enhanced refrigerant capacity in Gd-Al-Co microwires with a biphasic nanocrystalline/amorphous structure” - H.X. Shen, D.W. Xing, J.L. Sánchez Llamazares, C.F. Sánchez-Valdés, H. Belliveau, H. Wang, F.X. Qin, Y.F. Liu, J.F. Sun, and **H. Phan\***, **Applied Physics Letters** **108**, 092403 (2016).
- “Enhanced magnetic anisotropy and hyperthermia in multi-functional manganese ferrite/graphene oxide hybrid nanostructures” - A.T. Le, C.D. Giang, V.N. Phan, J. Alonso, J. Devkota, H. Srikanth, and **H. Phan\***, **Nanotechnology** **27**, 155707 (2016).
- “Critical Behavior and Macroscopic Phase Diagram of the Monoaxial Chiral Helimagnet Cr<sub>1/3</sub>NbS<sub>2</sub>” - E. Clements, R. Das, L. Li, Paula J. L. Kelley, **H. Phan\***, V. Keppens, D. Mandrus, and H. Srikanth, **Nature: Scientific Reports** **7**, 6545 (2017).
- “Relating surface roughness and magnetic domain structure to giant magneto-impedance of Co-rich melt-extracted microwires,” - S.D. Jiang, T. Eggers, O. Thiabgoh, D.W. Xing, W. D. Fei, H. X. Shen, J. S. Liu, J.R. Zhang, W.B. Fang, J.F. Sun, H. Srikanth, and **H. Phan\***, **Nature: Scientific Reports** **7**, 46253, (2017).
- “Strong Room Temperature Ferromagnetism in VSe<sub>2</sub> Monolayers on van der Waals substrates” - M. Bonilla, S. Kolekar, Y.J. Ma, H. Coy Diaz, V. Kalappattil, R. Das, T. Eggers, H.R. Gutierrez, **H. Phan\***, and M. Batzill\*, **Nature Nanotechnology** **13**, 289 (2018).

### Synergistic Activities, Distinctions, and Selected Achievements

- **The Outstanding Research Achievement Awards (2017, 2019)**, USF
- **The Outstanding Graduate Faculty Mentor Award (2018)**, USF
- **The Medal for The Development Cause of Vietnam National University - Hanoi**, 2018

- **Editor**, *Journal of Electronic Materials*, Springer Publisher (IF = 1.7; 2018-present)
- **Editor**, *Applied Sciences*, MDPI Publisher (IF = 2.2; 2018-present)
- **Managing Editor**, *Journal of Science: Advanced Materials and Devices*, Elsevier Publisher (Anticipated IF = 3; 2016-present)
- **Editorial Board Member**, *Nature: Scientific Reports*, Nature Springer Publisher (IF = 4.122, 2018-present)
- **Guest Editor for Special Issues**, Nanomaterials, Sensors, IEEE Transactions on Magnetics, Journal of Electronic Materials, and Journal of Applied Physics
- **Conference Chair**, *The 8th Energy Materials Nanotechnology (EMN) Fall Meeting*, November 22 - 25, 2014, Orlando, USA; *The 2019 Hanoi International Symposium on Advanced Materials and Devices*, January 10 - 12, 2019, Hanoi, Vietnam
- **Funded grants**, over \$3,000,000.00 received as PI and co-PI

#### Advisees:

- **Current postdoctoral and visiting scholars:** Eleanor Clements
- **Current graduate students:** Valery Ortiz Jimenez\* (PhD), Ms. Yen Pham\* (PhD), Mr. Joshua Robles (PhD), Ms. R. Pokharel Madhogaria (PhD), and Ms. Nguyen Thi My Duc\* (PhD), and C.M. Hung (MS)
- **Current undergraduate students:** Mr Michael Ostroff (USF, 2019)
- **Students graduated:** Eleanor Clements (Ph.D. dissertation, 2019), Dr. Ongard Thiabgoh\* (Ph.D. dissertation, 2018); Dr. Tatiana Eggers\* (Ph.D. dissertation, 2018); Dr. Vijaysankar Kalappattil (Ph.D. dissertation, 2018); Mr. Dao Son Lam\* (Ph.D. dissertation, 2018); Dr. Sida Jiang\* (Ph.D. dissertation, 2018); Dr. Hillary Belliveau\* (Ph.D. dissertation, 2016); Dr. Zohreh Nemati Porshokouh (Ph.D. dissertation, 2016); Dr. Kristen Stojak (Ph.D. dissertation, 2016); Dr. Paula Lampen (Ph.D. dissertation, 2015); Dr. Jagannath Devkota\* (Ph.D. dissertation, 2015); Dr. Nicholas Bingham (Ph.D. dissertation, 2013); Dr. Anurag Chaturvedi (Ph.D. dissertation, 2011); Dr. Hongxian Shen (Ph.D. dissertation, 2017, jointly with Prof. J.F. Sun at HIT); Mr. C. Witanachchi\* (B.S., 2018); Ms. S. Beyley\* (High school student, 2017); Mr. Jason Cardarelli\* (B.S. honor thesis, 2018); Ms. Israel Deborah\* (B.S. honor thesis, 2016); Mr. Brian Casas (M.S. thesis, 2015); Mr. Rupin Singh\* (B.S. honor thesis, 2015), Ms. Kristen Stojak (M.S. thesis, 2013); Ms. A. Stephan\* (B.S., 2016); Mr. A. Galati\* (B.S., 2016); Mr. Jeff Wingo (B.S., 2014); Mr. Ramon Alejandro Ruiz (B.S., 2013); Ms. Trang Tran\* (B.S. research, 2012-2013), Mr. Nicholas Laurita (B.S., June 2011)
- **Former postdoctoral & visiting researchers:** Raja Das (3/2014-5/2018); Mr. F. Andrejka\*, Visiting Ph.D. student (01 – 04, 2018); Ms. Nguyen Thi My Duc\*, Visiting Ph.D. student (09/2017-03/2018); Dr. Javier Alonso (12/2014-12/2016); Ms. Natalia Rinaldi, Visiting PhD student, (09-12/2015); Mr. Hongxian Shen\*, Visiting Ph.D. student (10/2014-10/2015); Dr. Hafsa Khurshid (11/2011-05/2015), Dr. Anis Biswas (11/2011 – 11/2013); Dr. Sayan

Chandra (11/2013 – 06/2014); Dr. Ahmed Talaat\*, Visiting Ph.D. student (03-06/2015); Mr. Jonathan Cruz Vargas, Visiting M.S. student (03-06/2015); Dr. Xueling Hou\*, Visiting Scientist, (03/01, 2014 – 03/30, 2015); Mr. Lam Dao\*, Visiting Ph.D. student (07/01 – 12/30, 2014); Dr. Peng Zhang\*, Visiting Ph.D. student (01/ 20 – 02/11, 2013); Mr. Yiyin Yu\*, Visiting researcher (10/01 – 04/30, 2013); Dr. Faxiang Qin\*, Visiting scientist (12/10-28, 2012); Dr. Dang Thi Minh Hue, Visiting Ph.D. student (07/04 – 10/03, 2012); Dr. Ngo Thi Thu Huong, Visiting scientist (06-08, 2011); Dr. R. Caballero-Flores, Visiting scientist (07/01 – 09/30, 2011); Dr. Adriana I. Figueroa, Visiting Ph.D. student (04-07, 2010)

- **REU students:** Baylee Senator (06/01- 08/01, 2019); Ms. Enya Silva (06/01-08/01, 2019); Mr. Jake Poler\* (06/01- 08/01, 2018); Ms. Elizabeth Fuller (06/01- 08/01, 2018); Ms. Claire Albrecht\* (06/01- 08/04, 2017), Ms. Caroline Collins (06/01- 08/04, 2017), Ms. M. Lassell (06/01- 08/04, 2016), Ms. D. Honstain\* (06/01- 08/04, 2016), Ms. Valery Ortiz Jimenez\* (06/01- 08/04, 2015), Ms. Evelyn Vila\* (06/01- 08/04, 2015), Mr. David Torres (06/01-08/04, 2015), Ms. Izzi Berman\* (06/01- 08/04, 2014), Mr. Luis Martinez (06/01- 08/04, 2014), Mr. Jeff Wingo (06/01 – 08/02, 2013); Ms. Rosemary Sheldon (06/01 – 08/05, 2011). (\**Corresponding author or major supervisor*).