

## SHEYUM G. M. SYED

James L. Knight Building, University of Miami, Coral Gables, FL-33124

Phone: (305) 284-7122 Email: sheyum@physics.miami.edu

### a. Professional Preparation

Lawrence University, WI	Physics	B.A., 1997
Columbia University, NY	Physics	M.S., 1999
Columbia University, NY	Physics	Ph.D., 2004
University of Illinois, IL	Biophysics	2004-2006
Rockefeller University, NY	Neuroscience	2007-2012

### b. Appointments

2013-present	Assistant Professor of Physics, University of Miami
2007- 2012	Postdoctoral Associate, Rockefeller University Advisor: Michael W. Young
2004-2006	Postdoctoral Associate, University of Illinois Advisor: Paul Selvin
1998-2003	Graduate Research Assistant, Columbia University Advisor: Horst L. Störmer
1996	Research Intern, Oak Ridge National Laboratory

### c. Publications

- Freeman, A., **Syed, S.**, Sanyal, S. (2013) Modeling the genetic basis for human sleep disorders in *Drosophila*. *Communicative & Integrative Biology* 6:1, e22733.  
<https://www.landesbioscience.com/journals/cib/article/22733/>
- **Syed, S.**, Saez, L., Young, M.W. (2011) Kinetics of Doubletime kinase-dependent degradation of the *Drosophila* Period protein. *Journal of Biological Chemistry* 286:27654-27662. <http://www.jbc.org/content/286/31/27654.full>
- **Syed, S.**, Müllner, F.E., Selvin, P.R., Sigworth, F.J. (2010) Improved hidden Markov models for molecular motors, part 2: extensions and application to experimental data. *Biophysical Journal* 99:3696-3703.
- Müllner, F.E., **Syed, S.**, Selvin, P.R., Sigworth, F.J. (2010) Improved hidden Markov models for molecular motors, part 1: Basic theory. *Biophysical Journal* 99:3684-3695.
- **Syed, S.**, Snyder, G.E., Armstrong, C.F., Selvin, P.R., and Goldman, Y.E. (2006) Adaptability of myosin V studied by simultaneous detection of position and orientation. *EMBO Journal* 25: 1795-1803.
- Toprak, E., Enderlein, J., **Syed, S.**, McKinney, S.A., Petschek, R.G., Ha, T., Goldman, Y.E., Selvin, P.R. (2006) 3-D orientation and position dynamics of myosin V. *Proceedings of the Natl. Acad. of Sciences* 103: 6495-6499.
- Henriksen, E.A., **Syed, S.**, Wang, Y.J., Stormer, H.L., Pfeiffer, L.N., and West, K.W.; Disorder-mediated splitting of the cyclotron resonance in two-dimensional electron systems. *Physical Review B, Rapid Communications* 73: 241309-241312, (2006).

- Kural, C., Kim, H., **Syed, S.**, Goshima, G., Gelfand, V.I., and Selvin, P.R. (2005) Kinesin and dynein move a peroxisome in vivo: A tug-of-war or coordinated movement? *Science* 308, 1469-1472.
- Henriksen, E.A., **Syed, S.**, Ahmadian, Y., Manfra, M. J., Baldwin, K.W., Sergent, A.M., Molnar, R.J., and Stormer, H.L.; Acoustic phonon scattering in a low density, high mobility AlGaIn/GaN field-effect transistor. *Applied Physics Letters* 86: 252108-252110, (2005).
- **Syed, S.**, Wang, Y.J., Stormer, H.L., Manfra, M.J., Pfeiffer, L. N., West, K. W., and Molnar, R. Large cyclotron-resonance line splitting of two-dimensional electrons in AlGaIn/GaN and AlGaAs/GaAs heterostructures. *Proceedings of the 16th International Conference on High Magnetic Fields in Semiconductor Physics*, (2004).
- **Syed, S.**, Manfra, M.J., Wang, Y.J., Molnar, R. J., and Stormer, H.L.; Electron scattering in AlGaIn/GaN structures. *Applied Physics Letters* 84: 1507-1509, (2004).
- **Syed, S.**, Manfra, M. J., Stormer, H.L., Wang, Y.J., and Molnar, R. J.; Large splitting of the cyclotron-resonance line in AlGaIn/GaN heterostructures. *Physical Review B, Rapid Communications* 67: 241304-241307, (2003).
- **Syed, S.**, Heroux, J.B., Wang, Y.J., Manfra, M.J., Molnar, R.J., and Stormer, H.L.; Non-parabolicity of the conduction band of wurtzite GaN. *Applied Physics Letters* 83: 4553-4555, (2003).
- Manfra, M.J., Weiman, N.G., Hsu, J.W.P., Pfeiffer, L. N., West, K. W., **Syed, S.**, and Stormer, H.L., et. al. High mobility AlGaIn/GaN heterostructures grown by plasma-assisted molecular beam epitaxy on semi-insulating GaN templates prepared by hydride vapor phase epitaxy. *Journal of Applied Physics* 92: 338-345, (2002).
- Li, L.K. Turk, B., Wang, W.I., **Syed, S.**, Simonian, D., and Stormer, H.L.; High electron mobility AlGaIn/GaN heterostructures grown on sapphire substrates by molecular-beam epitaxy. *Applied Physics Letters* 76: 742-744, (2000).

#### d. Conference/Seminar Presentations

Annual Meeting of the Society of Biological Rhythms (**Contributed**, June, 2014)  
 University of Miami, Dept. of Biology (**Invited**, 2013)  
 New York University, Dept. of Physics (**Invited**, 2012)  
 Emory University, Dept. of Physics (**Invited**, 2012)  
 Georgia Institute of Technology, Dept. of Physics (**Invited**, 2012)  
 International Symp on Bio-nanosystems, Matsushima, Japan (**Invited**, September 2006)  
 Waseda University, Tokyo, Japan (**Invited**, August 2006)  
 Annual Meeting of the Biophysical Society (**Contributed**, February 2006)  
 University of Illinois, Dept. of Mech Engineering (**Invited**, November 2005)  
 Annual Meeting of the Biophysical Society (**Contributed**, February 2005)  
 Meeting of the American Physical Society (**Contributed**, March 2004)  
 Meeting of the American Physical Society (**Contributed**, March 2003)  
 Fall Meeting of the Materials Research Society (**Contributed**, December 2002)  
 Meeting of the American Physical Society (**Contributed**, March 2002)  
 Meeting of the American Physical Society (**Contributed**, March 2001)