## Dohyung Park

| CONTACT<br>INFORMATION | Electrical & Computer Engineering The University of Texas at Austin 2501 Speedway, Austin, TX 78712-0240.  |                                       |
|------------------------|--|---------------------------------------|
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| RESEARCH<br>INTERESTS  | Machine Learning, Convex Optimization  |                                       |
| Education              | The University of Texas at Austin  Ph.D., Electrical & Computer Engineering  • Current GPA: 4.0/4.0  | August 2011 - Present                 |
|                        | Korea Advanced Institute of Science and Technology M.S., Electrical Engineering • GPA: 4.08/4.3  | August 2008                           |
|                        | <ul> <li>Korea Advanced Institute of Science and Technology</li> <li>B.S., Electrical Engineering with a minor in Computer Science</li> <li>Magna Cum Laude (GPA 3.71/4.3)</li> </ul>              | August 2005 ence                      |
| Honors<br>& Awards     | Bronze medalist, Korean Science Olympiad   | 1998                                  |
|                        | Bronze medalist, Korean Olympiad in Informatics  | 2000                                  |
|                        | KAIST Academic Full Scholarship  | 2001 - 2005                           |
|                        | KAIST Governmental Fellowship  | 2006 - 2008                           |
| Work<br>Experience     | Samsung Advanced Institute of Technology Research Staff  • Interference Alignment for Cellular Systems • Mobile Indoor Localization Systems  | gust 2008 - July 2011                 |
| TEACHING<br>EXPERIENCE | <ul> <li>The University of Texas at Austin Teaching Assistant <ul> <li>Large-scale Optimization</li> <li>Communication Networks</li> <li>Software Design and Implementation</li> </ul> </li> </ul> | Fall 2012<br>Spring 2012<br>Fall 2011 |
|                        | Korea Advanced Institute of Science and Technology   |                                       |
|                        | <ul> <li>Teaching Assistant</li> <li>Advanced Information Theory</li> <li>Advanced Coding Theory</li> </ul>  | Spring 2008<br>Spring 2007            |

## SELECTED COURSES

Math - Real Analysis, Probability and Stochastic Processes, Theory of Probability, Numerical Linear Algebra

**EECS** - Machine Learning, Advanced Machine Learning, Sparsity/Structure/Algorithms, Information Theory, Advanced Information Theory, Coding Theory, Advanced Coding Theory, Communication Systems, Advanced Communication Systems

**OR** - Linear Programming, Nonlinear Programming

## **PUBLICATIONS**

- [1] **Dohyung Park** and Sae-Young Chung, "Performance-complexity tradeoffs of rateless codes," in *Proc. IEEE International Symposium on Information Theory(ISIT)*, Toronto, Canada, July 2008.
- [2] **Dohyung Park**, Joonsung Kang, and Eung Sun Kim, "Ad hoc indoor peer-to-peer tracking using relative location estimation," in *Proc. International Conference on Indoor Positioning and Indoor Navigation(IPIN)*, ETH Zurich, Switzerland, Sept. 2010.
- [3] Bang Chul Jung, **Dohyung Park**, and Won-Yong Shin, "Opportunistic interference mitigation achieves optimal degrees-of-freedom in wireless multi-cell uplink networks," *IEEE Transactions on Communications*, Vol. 60, No. 7, pp. 1935-1944, July 2012.
- [4] Namyoon Lee, **Dohyung Park**, and Young-Doo Kim, "Degrees of freedom on the K-user MIMO interference channel with constant channel coefficients for downlink communications," in *Proc. IEEE Global Communications Conference*(GLOBECOM), 2009.

## Patents

- Dohyung Park, Namyoon Lee, Young-Doo Kim, and Eung Sun Kim, "Communication system performing interference alignment and interference alignment method," US2011/0051837A1, Mar. 2011.
- Dohyung Park, Eung Sun Kim, and Joon Seong Kang, "Apparatus and method for estimating relative location," US2011/0270519A1, Nov. 2011.
- Dohyung Park, Sung Cheol Kim, and Eung Sun Kim, "Method and apparatus for expressing the accuracy of a measured location of a terminal," US2012/0040697A1, Feb. 2012.
- Dohyung Park, Eung Sun Kim, and Sung Cheol Kim, "Method of generating map, and method of measuring location of terminal using the map," US2012/0039316A1, Feb. 2012.
- Joon Seong Kang, Eung Sun Kim, and **Dohyung Park**, "Method and apparatus for estimating angle of arrival," US2011/0199263A1, Aug. 2011
- Namyoon Lee, **Dohyung Park**, and Young-Doo Kim, "Adaptive interference alignment precoding and decoding to prevent multi-cell interference," US2010/0248712A1, Sep. 2010.