



### **Ghassan M. Kraidy**

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## **Biography**

Ghassan M. Kraidy received his B.E. degree in Computer and Communication Engineering from Notre Dame University, Zouk Mosbeh, Lebanon, in 2001, and the M.Sc. degree in Communication Engineering and the Doctorate degree in Communications and Electronics from the Ecole Nationale Supérieure des Télécommunications (ENST) in Paris, France, in 2003 and 2007, respectively. In October 2007, he joined the Digital Communications Laboratory at the Atomic Energy Commission (CEA-LETI), Grenoble, France, as a research engineer, where he was involved in several French and European research projects on subjects related to error correction algorithms. In January 2009, he joined the Department of Electronics and Telecommunications at the Norwegian University of Science and Technology (NTNU), Trondheim, Norway, where he conducted research on interference-limited wireless systems and wireless sensor networks within Scandinavian and European projects. In October 2010, he joined the Department of Electrical, Computer, and Communication Engineering at Notre Dame University as an Assistant Professor. He has been promoted to the rank of Associate Professor in September 2016. His research interests are error correcting codes, multiple-antenna systems, and wireless cooperative networks.

## **Peer-reviewed Journals**

### **International**

- Kraidy G. M. (2016) On Progressive Edge-Growth Interleavers for Turbo Codes, IEEE Communications Letters, Vol. 20, No. 2
- Salvo Rossi P., Kraidy, G.M. (2011) Iterative Multiuser Detection for Cooperative MIMO Systems over Quasi-Static Fading Channels, IEEE Transactions on Wireless Communications, Vol. 10, p. 11.
- Kraidy, G.M. and Salvo, R.P. (2011) Achieving Full Diversity over the MIMO Fading Channel with Space-Time Precoders and Iterative Linear Receivers. IEEE Transactions on Wireless Communications, Vol. 10, No. 8
- Kraidy, G.M. and Savin, V. (2010) Capacity-approaching irregular turbo codes for the binary erasure channel. IEEE Transactions on Communications, Vol. 58, No. 9.
- Kraidy, G.M., Gresset, N., and Boutros, J.J. (2010) Coding for the non-orthogonal amplify-and-forward cooperative channel. IEEE Transactions on Information Theory, Vol. 56, No. 6.
- Kraidy, G.M. and Boutros, J.J. (2008) Coding for MIMO systems using matrix-Alamouti and multi-user detection techniques. IEEE Transactions on Wireless Communications, Vol. 7, No. 10.
- Kraidy, G.M., Boutros, J.J., and Guillén i Fabregàs, A. (2007) Approaching the outage probability of the amplify-and-forward relay fading channel. IEEE Communications Letters, Vol. 11, No. 10.

## Peer-reviewed Conference Proceedings

### International

- H. Hamad and G. M. Kraidy, "New Bounds on Convolutional Code Performance over the Bernoulli- Gaussian Channel," International Conference on Computational Tools for Engineering Applications, Notre Dame University, Zouk Mosbeh, Lebanon, July 2019.
- H. Hamad and G. M. Kraidy, "Performance analysis of turbo codes over the Bernoulli-Gaussian impulsive noise channel," Canadian Workshop on Information Theory, Hamilton, Canada, June 2019.
- G. M. Kraidy, "Performance Analysis of Low Density Parity-Check Codes over the Bernoulli-Gaussian channel," Canadian Workshop on Information Theory, Hamilton, Canada, June 2019.
- G. M. Kraidy, "Convolutional code design for secure transmission on a two-link compound wiretap channel," Canadian Workshop on Information Theory, Quebec City, Canada, June 2017.
- H. Hamad and G. M. Kraidy, "Performance analysis of convolutional codes over the Bernoulli- Gaussian impulsive noise channel," Canadian Workshop on Information Theory, Quebec City, Canada, June 2017.
- G. M. Kraidy, "High-rate turbo code design for block-fading channels," IEEE Mediterranean Electrotechnical Conference (MELECON), Limassol, Cyprus, April 2016.
- Kraidy, G.M. (2015) Outage approaching turbo-network codes for the multiple-access relay channel, IEEE International Conference on Communications, Management and Telecommunications , Da Nang, Vietnam.
- Kraidy, G.M. (2013) Coding for the MIMO multi-hop amplify-and-forward fading channel with limited feedback. IEEE International Symposium on Personal, Indoor and Mobile Radio Communications, London, UK.
- Kraidy, G.M. and Salvo Rossi, P. (2010) Full-diversity iterative MMSE receivers with space-time precoders over block-fading MIMO channels. International Conference on Wireless Communications and Signal Processing, Suzhou, China.
- Kraidy, G.M., Boutros, J.J., and Guillén i Fabregàs, A. (2010) Irregular turbo codes in block-fading channels. IEEE International Symposium on Information Theory, Austin, Texas, USA.
- Kraidy, G.M. and Salvo Rossi, P. (2010) Iterative MMSE receivers for multiuser MIMO cooperative systems," IEEE International Workshop on Signal Processing Advances in Wireless Communications, Marrakech, Morocco.
- Flam, J.T., Kraidy, G.M., and Ryan, D. (2010) Using a sensor network to localize a static source under spatially correlated fading. IEEE Vehicular Technology Conference, Taipei, Taiwan.
- Kraidy, G.M. and Gresset, N. (2010) Coding for the MIMO multi-hop amplify-and-forward fading channel. International Conference on Telecommunications, Doha, Qatar.
- Kraidy, G.M. and Salvo Rossi, P. (2009) Iterative multiuser detection for cooperative MIMO systems. NFR -VERDIKT Conference, Oslo, Norway.
- Kraidy, G.M. and Boutros, J.J. (2009) Coding for two-user MIMO cooperative systems using matrix-Alamouti techniques. International Conference on Computational Tools for Engineering Applications, Notre Dame University, Zouk Mosbeh, Lebanon.
- Cunche, M., Savin, V., Roca, V., Kraidy, G.M., Soro A., and Lacan, J. (2008) Low-rate coding using incremental redundancy for GLDPC code. IEEE International Workshop on Satellite and Space Communications, Toulouse, France.
- Kraidy, G.M. and Savin, V. (2008) Irregular turbo code design for the binary erasure channel. International Symposium on Turbo Codes & Related Topics, EPFL, Lausanne, Switzerland.
- Kraidy, G.M. and Savin, V. (2008) Minimum-delay decoding of turbo codes for upper-layer FEC. IEEE International Workshop on Signal Processing Advances in Wireless Communications, Recife, Brazil.
- Kraidy, G.M., Gresset, N., and Boutros, J.J. (2007) Coding for the non-orthogonal amplify-and-forward cooperative channel. IEEE Information Theory Workshop, Lake Tahoe, California, USA.
- Kraidy, G.M., Boutros, J.J., and Guillén i Fabregàs, A. (2007) Coded modulation for the amplify-and-forward relay channel. IEEE Winter School on Coding and Information Theory, La Colle-sur-Loup, France.
- Kraidy, G.M. and Boutros, J.J. (2006) Coding for 4Tx-2Rx MIMO system using multi-user CDMA detection techniques. International Workshop on Signal Processing for Satellite Communications, The European Space Agency, Noordwijk, The Netherlands.
- Boutros, J.J., Kraidy, G.M., and Gresset, N. (2006) Near outage limit space-time coding for MIMO channels. Inaugural Workshop for the Center of Information Theory, UCSD, La Jolla, California, USA.
- Kraidy, G.M., Gresset, N., and Boutros, J.J. (2005) Information theoretical versus algebraic constructions of linear unitary precoders for non-ergodic multiple antenna channels. Canadian Workshop on Information Theory, Montréal, Canada.