

WEI Q. DENG  
University of Toronto  
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## Education

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2013–present PhD. in Statistics under supervision of Radu V. Craiu, University of Toronto  
2011–2013 M.Sc. in Health Research Methodology with distinction under supervision of Angelo Canty, McMaster University  
2007–2011 Honours B.Sc. in Mathematics & Statistics with distinction, McMaster University

## Publications

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Peer reviewed Journal Article:

- 2017** Wei Q. Deng, Dmitry Shungin, . . . , Franks W. Paul Ranking and characterization of established BMI and lipid associated loci as candidates for gene-environment interactions. *PLOS Genetics* 13(6): e1006812. <https://doi.org/10.1371/journal.pgen.1006812>
- 2016** Guillaume Paré, Shihong Mao, Wei Q. Deng, A method to estimate the contribution of regional genetic associations to complex traits from summary association statistics *Scientific Reports*. 6, 27644. <http://doi.org/10.1038/srep27644>
- 2015** Guillaume Paré, Senay Asma, Wei Q. Deng, Contribution of Large Region Joint Associations to Complex Traits Genetics. *PLOS Genetics*. 11(4): e1005103. doi: 10.1371/journal.pgen.1005103
- 2014** Zahra N. Sohani, Wei Q. Deng, Guillaume Paré, David Meyre, Hertzfel C. Gerstein, and Sonia S. Anand, Does genetic heterogeneity account for the divergent risk of type 2 diabetes mellitus in South Asian and white Caucasian populations? *Diabetologia*., 57(11), 2270-2281. doi:10.1007/s00125-014-3354-1
- 2014** Michela Brambatti, Stuart J Connolly, Michael R Gold, ... , Wei Q. Deng (15/17), ..., Jeff S Healey, Temporal Relationship between Subclinical Atrial Fibrillation and Embolic Events. *Circulation*. doi: 10.1161/CIRCULATIONAHA.113.007825
- 2013** Deng WQ, Asma S, and Paré G., Meta-analysis of SNPs involved in variance heterogeneity using Levene’s test for equal variances. *European Journal of Human Genetics*. doi:10.1038/ejhg.2013.166
- 2011** Deng WQ and Paré G., A fast algorithm to optimize SNP prioritization for gene-gene and gene-environment interactions. *Genetic Epidemiology*. **35**: 729738. doi: 10.1002/gepi.20624
- 2011** Lear SA, Deng WQ, Paré G, Sulistyoningrum DC, Loos RJF, Devlin AM., Associations of the FTO rs9939609 variant with discrete body fat depots and dietary intake in a multi-ethnic cohort. *Genetics Research*, **93(6)**, 419-26. doi:10.1017/S001667231100036

Software Package:

- 2011** Wei Q. Deng and Guillaume Paré (2011). GEWIST: Gene Environment Wide Interaction Search Threshold. Bioconductor Release (2.11). R package version 1.2.0. <http://www.bioconductor.org/packages/2.11/bioc/html/GEWIST.html>

Conference Presentations:

- 2016** Deng WQ., Sun L, **Addressing the inherent confounding by sex on X-chromosome association and variance heterogeneity analyses - statistical issues and remedies**, International Genetic Epidemiology Society (Toronto, Canada)
- 2016** Deng WQ., Sun L, **Addressing the inherent confounding by sex on X-chromosome association and variance heterogeneity analyses - statistical issues and remedies**, American Society of Human Genetics meeting (Vancouver, Canada)
- 2016** Deng WQ., Craiu R.V, **Estimation of the number of clusters using penalized probabilistic PCA** 2016 Joint Statistical Meetings (Chicago, US)
- 2013** Sohani ZN., Deng WQ., Anand S.S, **Polymorphisms of DNA leading to increased susceptibility for Type 2 Diabetes in South Asians: A systematic review and meta-analysis**. 62nd Annual American Society of Human Genetics meeting (Boston, USA)
- 2012** Deng WQ, Canty A, Asma S, Paré G, **A likelihood approach to prioritize SNPs for interactions using variance per genotype**. Presented by the first author at the 21st annual International Genetic Epidemiology Society conference (Stevenson, USA)
- 2012** Deng WQ, Asma S, Paré G, **Prioritizing SNPs for Gene-gene and Gene-environment Interactions: A Method to Meta-analyze Levene's Test of Homogeneity of Variance**. Presented by the third author at the 21st annual International Genetic Epidemiology Society conference (Stevenson, USA)
- 2011** Deng WQ and Paré G, **A fast algorithm to optimize SNP prioritization for gene-gene and gene-environment interactions** Presented by the first author at the 60th Annual American Society of Human Genetics (ASHG) meeting (Montreal, Canada)
- 2011** Deng WQ, Canty A, Paré G, **A likelihood approach to prioritize SNPs for interactions using variance per genotype** Presented by the first author at the 20th annual International Genetic Epidemiology Society (IGES) conference (Heidelberg, Germany)
- 2011** Deng WQ, Canty A, Paré G, **A likelihood approach to prioritize SNPs for interactions using variance per genotype** Presented by the second author at the 6th Annual Canadian Genetic Epidemiology & Statistical Genetics Meeting (Toronto, Canada)

Peer Reviews

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Journals:

- 2014** *Behaviour Research Methods*  
**2014** *PLOS ONE*

Skills

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**Programming:** R, SAS

**Genetic Softwares:** GCTA, GATK, PLINK, SNPTEST

## Awards and Honours

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<b>Queen Elizabeth II Graduate Scholarship in Science and Technology</b> \$15,000/year for one year	<i>2017</i>
<b>Alexander Graham Bell Canada Graduate Scholarships (NSERC-CGS) - Doctoral</b> \$35,000/year for three years	<i>2014</i>
<b>Ontario Graduate Scholarship</b> \$15,000/year for one year	<i>2013</i>
<b>Graduate Admission Award (University of Toronto)</b> \$2,000	<i>2013</i>
<b>CIHR Master's Award</b> Frederick Banting and Charles Best Canada Graduate Scholarships \$17,500/year for one year	<i>2012</i>
<b>Ontario Graduate Scholarship</b> \$15,000/year for one year; declined	<i>2012</i>
<b>Ontario Graduate Scholarship</b> \$15,000/year for one year	<i>2011</i>
<b>McMaster Entrance Scholarship (Graduate Level)</b> \$5,000	<i>2011</i>
Department of Mathematics and Statistics, McMaster University Included on the Dean's Honour List for academic excellence	<i>2011</i>
Department of Mathematics and Statistics, McMaster University Included on the Dean's Honour List for academic excellence	<i>2008-2009</i>
<b>McMaster Entrance Award Scholarship</b> Awarded for academic achievements in secondary school and retained for academic excellence (\$2,000/year for 4 years)	<i>2007-2011</i>
<b>Queen Elizabeth II Aiming for the Top Scholarship</b> Awarded for academic excellence and retained for academic excellence (\$3,500/year for 3 years)	<i>2007-2010</i>