

# Virgile Caron

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## Personal Details

Born October 14, 1982.  
French.

## Education

**2008-2012** PhD in Statistics at Pierre and Marie Curie University: "A conditional limit theorem. Applications to conditional inference and Importance Sampling methods" (supervision: Pr Michel Broniatowski).  
**Jury:** Michel Broniatowski (Supervisor), Christian P. Robert, François Le Gland, Eric Moulines, Gérard Biau, Gilles Pagès.

## Work Experience

**2013-2014** Post-doctoral researcher on "Bayesian methods (Thompson Sampling) for Multi-Armed Bandits under constraints" at Telecom Paris-Tech (engineering school). Supervisor: Olivier Cappé.

**2011-2013** ATER (Assistant Professor) at Pierre and Marie Curie University.

**2008-2011** PhD student in Statistics (with teaching mission) at Pierre and Marie Curie University.

**2007-2008** Work experience at GDF-Suez as a statistical engineer under the supervision of Michel Meyer et Michel Broniatowski.  
Realization of a software for estimating the lifetime of gas pipeline.

**2006-2007** Work experience at Hôpital Necker Enfant-Malade under the supervision of Dr Samara- Boustani.  
Management of a large database, decision aids, descriptive statistics.

## Publications

1. Articles in peer reviewed journals.

Gueniche K., Isaac P., Samara-Boustani D., Dabbas M., Caron V. and Polak M. (2008), The psychic functioning of young girl who have been obese since childhood. *Psychologie clinique et projective*, vol. 14, pp. 155-187.

Samara-Boustani D., Colmenares A., Elie C., Dabbas M., Beltrand J., Caron V., Ricour C., Jacquin P., Tubiana-Rufi N., Levy-Marchal C., Delcroix C., Martin D., Benadjaoud L., Jacqz Aigrain E., Trivin C., Laborde K., Thibaud E., Robert J. and Polak M. (2012). High prevalence of hirsutism and menstrual disorders in obese adolescent girls and adolescent girls with type 1 diabetes mellitus despite different hormonal profiles. *European Journal of Endocrinology*, (166):307-316.

Broniatowski M. and Caron, V. (2013). Small variance estimators for rare event probabilities. *ACM TOMACS Special Issue on Monte Carlo Methods in Statistics*, (23):1 (article 7).

Caron, V., Guyader, A., Munoz Zuniga, M. and Tuffin B. (2013). Some recent results in rare event estimation. To appear in ESAIM proceedings.

Broniatowski M. and Caron V. (2013). Conditional inference in parametric models. To appear in *Statistical Models and Methods for Reliability and Survival Analysis, Part A : Statistical models and Methods*, article 6, editors: Couallier V., Gerville-Réache L., Huber C., Limnios N. and Mesbah M., Wiley.

Broniatowski M. and Caron V. (2011). Long runs under a conditional limit distribution. To appear in *Annals of Applied Probability*.

Caron, V. (2014). Importance Sampling for multi-constraints rare event probability. To appear in *Book of Proceedings of the Seventh International Workshop on Simulation*, Springer.

## 2. Preprints.

Caron, V. (2013). Some results on Importance Sampling for i.i.d. sums. (French). Submitted.

Caron, V. (2014). Importance Sampling for multi-constraints rare event probability. Submitted.

Caron, V. (2014). Long runs under a multivariate conditional limit distribution. Submitted.

## 3. Working progress.

Caron, V. (2014). Thompson Sampling under constraints.

# Teaching

**2012-2013** ATER (Assistant Professor) at Pierre and Marie Curie University.

Undergraduate : "Data analysis and regression analysis" (Tutorial 36h).

Postgraduate : "Time series" (Tutorial 30h).

Postgraduate : "Statistical inference" (Tutorial 70h).

**2011-2012** ATER (Assistant Professor) at Pierre and Marie Curie University.

Undergraduate : "Data analysis and regression analysis" (Tutorial 36h).

Postgraduate : "Time series" (Tutorial 30h).

Postgraduate : "Statistical inference" (Tutorial 70h).

**2008-2011** Teaching Assistant at Pierre and Marie Curie University.

Undergraduate : "Vector Space" (Tutorial 156h).

Undergraduate : "Data analysis and regression analysis" (TD 36h).

## Oral Communications

**May 2013** New methods in Importance Sampling. Seventh International Workshop on Simulation, Rimini (Italie).

**April 2013** Between conditional inference and Importance Sampling, Séminaire de Statistiques, Rennes (France).

**March 2013** Between conditional inference and Importance Sampling, Séminaire de Statistiques, Strasbourg (France).

**March 2013** A conditional limit theorem and applications, Séminaire de Statistiques, Compiègne (France).

**February 2013** Between conditional inference and Importance Sampling, Séminaire de Probabilités et Statistiques, Nice (France).

**August 2012** Importance Sampling and conditional random walk. MAS Week, Clermont-Ferrand (France).

**Mars 2012** Conditional inference in parametric models, Groupe de Travail des Thésards, Paris (France).

**September 2011** Rare event probability and conditional random walk. Fourth meeting of Young Statisticians, Aussois (France).

**May 2011** Rare event probability and conditional random walk., 43rd Days of Statistics, Tunis (Tunisie).

**June 2010** Rare event probability and conditional random walk, Nineth meeting of Young Probabilist and Statisticians, Mont Dore (France).

**April 2009** Importance sampling and conditional random walk, Groupe de Travail des Thésards, Paris (France).

Last updated: September 15, 2014

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