# dr. ir. Roland M. van Rijswijk-Deij

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## Education

**02/2014 – 06/2017** **Doctor of Philosophy** in Computer Science (*cum laude*)
University of Twente, Enschede, The Netherlands

**09/1995 – 08/2001** **Master of Science** in Computer Science
University of Twente, Enschede, The Netherlands

## Professional Experience

**11/2018 – present** **NLnet Labs**, Amsterdam, The Netherlands
*Principal Scientist*
Researching core Internet protocols (DNS, BGP, IP, ...)

**09/2008 – 10/2018** **SURFnet**, Utrecht, The Netherlands
*R&D Project Manager and Researcher*
DNS, DNSSEC, Network Security, Network Measurements

**11/2006 – 08/2008** **InTraffic**, Nieuwegein, The Netherlands
*Lead Software Designer*
Control Software for Railway and Public Transport Infrastructure

**10/2002 – 11/2006** **AET Europe**, Arnhem, The Netherlands
*Senior Software Engineer*
Cryptographic Middleware and Embedded Software for Smart Cards

**01/2001 – 10/2002** **Royal Philips Electronics**, Eindhoven, The Netherlands
*Software and Test Engineer*

**09/2000 – 12/2000** **British Telecommunications (BT) R&D**, Ipswich, United Kingdom
*Industrial Traineeship*

## Academic Positions

**11/2017 – present** **University of Twente**, Enschede, The Netherlands
*Assistant Professor (part-time)*
In the Design and Analysis of Communication Systems Group,
Faculty of Electrical Engineering, Maths and Computer Science

**07/2017 – 10/2017** **University of Twente**, Enschede, The Netherlands
*Guest Researcher*

**02/2014 – 06/2017** **University of Twente**, Enschede, The Netherlands
*Ph.D. Candidate*

**02/2016 – 03/2016** **CAIDA, University of California at San Diego**, United States
*Visiting Researcher*

**02/2013 – 02/2014** **Radboud University**, Nijmegen, The Netherlands
*Ph.D. Candidate*

## Selected Publications (full list see https://rijswijk.github.io/)


**[1]** T. Chung, R. van Rijswijk-Deij, B. Chandrasekaran, D. Choffnes, D. Levin, B.M. Maggs, A. Mislove and C. Wilson. *A Longitudinal, End-to-End View of the DNSSEC Ecosystem.* In Proceedings of the 26th USENIX Security Symposium (USENIX Security '17). Vancouver, BC, Canada: USENIX Association. *(Acceptance Rate: 16.3%)*

**[2]** R. van Rijswijk-Deij, K. Hageman, A. Sperotto, and A. Pras. *The Performance Impact of Elliptic Curve Cryptography on DNSSEC Validation.* IEEE/ACM Transactions on Networking, vol. 25, no. 2, 2017. *(Impact Factor 2016/2017: 3.376)*

**[3]** R. van Rijswijk-Deij, M. Jonker, A. Sperotto, and A. Pras. *A High-Performance, Scalable Infrastructure for Large-Scale Active DNS Measurements.* IEEE Journal of Selected Areas in Communications, vol. 34, no. 7, pp. 1877–1888, 2016. *(Impact Factor 2016/2017: 8.085)*

**[4]** R. van Rijswijk-Deij, A. Sperotto, and A. Pras. *DNSSEC and Its Potential for DDoS Attacks.* In Proceedings of ACM IMC 2014, 2014. *(Acceptance Rate: 22.9%)*

**[5]** G. van den Broek, R. van Rijswijk-Deij, A. Sperotto, and A. Pras. *DNSSEC Meets Real World: Dealing with Unreachability Caused by Fragmentation.* IEEE Communications Magazine, vol. 52, no. April, pp. 154–160, 2014. *(Impact Factor 2014: 4.007)*


## Awards

**2018** **IFIP/IEEE NOMS Best Paper Award**
Paper: *"Melting the Snow: Using Active DNS Measurements to Detect Snowshoe Spam Domains"*
presented at IFIP/IEEE NOMS, April 23-27, 2018, Taipei, Taiwan

**TMA Best Open Dataset Award**
Paper: *"Passive Observations of a Large DNS Service: 2.5 Years in the Life of Google"*
presented at TMA 2018, June 25-29, 2018, Vienna, Austria

**2017** **USENIX Security Distinguished Paper Award**
Paper: *"A Longitudinal, End-to-End View of the DNSSEC Ecosystem"* [1]
presented at the 26th USENIX Security Symposium, August 16-18, 2017, Vancouver, BC, Canada

**IRTF Applied Networking Research Prize (ANRP)**
Paper: *"The Performance Impact of Elliptic Curve Cryptography on DNSSEC Validation"* [2]
presented at IETF 100 in Singapore, November 2017

**2015** **IRTF Applied Networking Research Prize (ANRP)**
Paper: *"DNSSEC and Its Potential for DDoS Attacks"* [4]
presented at IETF 94 in Yokohama, Japan, November 2015

**2014** **ACM SIGCOMM IMC Community Contribution Award**
Paper: vb *"DNSSEC and Its Potential for DDoS Attacks"* [4]
presented at ACM SIGCOMM IMC 2014, Vancouver, BC, Canada, November 2014

## Master Students

Boudewijn Ector (2009), Niels Monen (2011), Gijs van den Broek (2012), Sean Rijs (2014), Kaspar Hageman (2015), Romanos Dodopoulos (2015), Tho Le (2017), Olivier van der Toorn (2017), Gijs Rijnders (2018), Caspar Schutijser (2018)

## Short Biography

Roland van Rijswijk-Deij was born in Arnhem, The Netherlands, on March 17th, 1977. He holds an M.Sc. degree in Computer Science from the University of Twente, Enschede, The Netherlands (2001). Roland received a *cum laude* Ph.D. degree from the University of Twente in June 2017, for his thesis entitled "Improving DNS Security: a Measurement-Based Approach". Roland has a background in embedded systems, applied cryptography and networking. He previously worked for British Telecom (2000, traineeship), Royal Philips Electronics (2001-2002), AET Europe (2002-2006), InTraffic (2006-2008) and SURFnet (2008-2018).

Since 2018, Roland is principal scientist at NLnet Labs, a not-for-profit foundation that performs research on, and develops open source software for, the core protocols of the Internet. Past innovation projects initiated by Roland have focused on DNS, DNSSEC, detecting and mitigating DDoS attacks, IPv6 and many other topics. Roland regularly presents his work in international networking venues, such as TNC, Internet2 conferences, IETF meetings, ICANN meetings, RIPE meetings and NANOG.

Next to his work at NLnet Labs, Roland is assistant professor computer network security in the Design and Analysis of Communication Systems group at the University of Twente.