

prof. dr. ir. Ionica Smeets

Science Communication and Society
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PROFILE

I am a communication scholar who wants to improve the interaction between science and society by studying how science communication works. I love working in interdisciplinary projects that bring together experts from different fields, communication scholars, artists and science journalists.

EXPERIENCE

Professor of Science Communication, Leiden University — 2015-present

I lead the group Science Communication & Society with as main research themes *Bridging the gap between experts and laymen* and *Authenticity in informal learning*. My group currently consists of two assistant professors, four postdocs, four PhD-students, a project manager and a research assistant. I am responsible for the master specialisation *Science Communication and Society*.

Science journalist, freelance — 2004-present

I write weekly science columns for national paper *De Volkskrant* and create and host popular-scientific television shows such as *The national science quiz*.

Researcher Public Understanding of Science, Leiden University — 2009–2011

Together with prof. dr. Bas Haring I studied the best ways to explain science to a general audience. Our research led to a collection of exemplary science stories, published as *Vallende Kwartjes*.

PhD Student Mathematics, Leiden University — 2005-2010

My thesis was titled *On continued fraction algorithms* and my advisors were prof. dr. Rob Tijdeman and dr. Cor Kraaikamp.

EDUCATION

- * MSc Applied Mathematics, Delft University of Technology, 2005 (with honors)
- * BSc Technical Mathematics, Delft University of Technology, 2004
- * Pre-university education, Maascollege Maassluis, 1998

REFEREED ARTICLES (SELECTION)

- * Cheplygina, V., Hermans, F., Albers, C., Bielszyk, N., & **Smeets, I.** (2020). Ten simple rules for getting started on Twitter as a scientist. *PLOS Computational Biology*, 16(2). doi: 10.1371/journal.pcbi.1007513
- * Hariman, N., de Vries, M., & **Smeets, I.** (2019). Topic Modeling for Exploring Cancer-Related Coverage in Journalistic Texts. In Atzmueller M., Duivesteijn W. (Eds.) *Artificial Intelligence. BNAIC 2018. Communications in Computer and Information Science*, vol 1021 (pp. 43-51). Springer, Cham.
- * Hooykaas, M. J., Schilthuizen, M., Aten, C., Hemelaar, E. M., Albers, C. J., & **Smeets, I.** (2019). Identification skills in biodiversity professionals and laypeople: A gap in species literacy. *Biological Conservation*, 238, 108202
- * Bossema, F.G., Burger, P., Bratton, L., Challenger, A., Adams, R.C., Sumner, P., Schat, J., Numans, M.E., **Smeets, I.** (2019). Expert quotes and exaggeration in health news: a retrospective quantitative content analysis. [version 1; peer review: 2 approved with reservations]. *Wellcome Open Res* 4, 56. doi: 10.12688/wellcomeopenres.15147.1
- * Venhuizen, G. J., Hut, R., Albers, C., Stoof, C. R., & **Smeets, I.** (2019). Flooded by jargon: How the interpretation of water-related terms differs between hydrology experts and the general audience. *Hydrology and Earth System Sciences Discussions*, 23(1), 393-403. doi:10.5194/hess-2018-297
- * Vries, M. D., Land-Zandstra, A., & **Smeets, I.** (2019). Citizen Scientists' Preferences for Communication of Scientific Output: A Literature Review. *Citizen Science: Theory and Practice*, 42. doi:10.5334/cstp.136
- * **Smeets, I.** (2018). What Do People Like about Mathematics? *Adults Learning Mathematics: An International Journal*, 13, 7.
- * Schat, J., Bossema, F.G., Numans, M.E., **Smeets, I.**, Burger, J.P. (2018). Overdreven gezondheidsnieuws. Relatie tussen overdrijving in academische persberichten en in nieuwsmidia. *Nederlands Tijdschrift voor Geneeskunde*, 162, 5.
- * Hut, R. Land-Zandstra, A.M., **Smeets, I.**, Stoof, C.R. (2016). Geoscience on television: a review of science communication literature in the context of geosciences. *Hydrology and Earth System Sciences*, 20(6), 2507-2518. doi: 10.5194/hess-20-2507-2016
- * Bosma, W., & **Smeets, I.** (2013). Finding simultaneous Diophantine approximations with prescribed quality. *The Open Book Series*, 1(1), 167-185. doi: 10.2140/obs.2013.1.167
- * Kraaikamp, C., Schmidt, T. A., & **Smeets, I.** (2010). Natural extensions for α -Rosen continued fractions. *Journal of the Mathematical Society of Japan*, 62(2), 649-671. doi: 10.2969/jmsj/06220649
- * **Smeets, I.**, Lenstra, A., Lenstra, H., Lovász, L., & van Emde Boas, P. (2009). The History of the LLL-algorithm. In *The LLL Algorithm* (pp. 1-17). Springer, Berlin, Heidelberg. doi: 10.1007/978-3-642-02295-1_1
- * Kraaikamp, C., Schmidt, T. A., & **Smeets, I.** (2007). Tong's spectrum for Rosen continued fractions. *Journal de théorie des nombres de Bordeaux*, 19(3), 641-661. doi: 10.5802/jtnb.606

MEDIA (SELECTION)

- * Creating and hosting segments for school television on mathematics (2007-current).
- * Creating and hosting *Eureka*, a popular-scientific show on Dutch national television about mathematics (2013).
- * Co-writing and hosting the National Science Quiz (2015-2019).

Furthermore, I believe it is important that scientists are visible in the public debate, which is why I am a regular guest in radio and tv programs. Some of the recent highlights include being the first scientist to appear on the popular Saturday night show *De Kwis*, appearing repeatedly on national talkshow *De Wereld Draait Door* and becoming the character Pionica Smeets in Donald Duck.

BOOKS

- * **Smeets, I.** Superlogisch, Uitgeverij Nieuwezijds (2020).
- * Driessen, Y. & **Smeets, I.** De verrassende verjaardagen - en andere nogal logische fotostrips Uitgeverij Nieuwezijds (2019)
- * **Smeets, I.** Zoete kinderen eten geen suiker. Uitgeverij Nieuwezijds (2016).
- * **Smeets, I.** Het exacte verhaal - wetenschapscommunicatie voor bèta's. Uitgeverij Nieuwezijds (2014).
- * Daems, J. & **Smeets, I.** Ik was altijd heel slecht in wiskunde. Uitgeverij Nieuwezijds (2011) (Also translated as *Mit den Mathemädels durch die Welt*. Springer Spectrum (2016)).
- * Haring, B. & **Smeets, I.** Vallende kwartjes. Nijgh & van Ditmar (2010)

GRANTS AND AWARDS

Scholarship/Grant/ Prize Formal applicant	Amount in euros	For my group in case of a consortium	Year of award
NWA Startimpuls 'Zwaartekracht - een nieuwe ontdekkingsreis.'	2.500 K	300K	2017
LUF- Gratama	8,2 K		2017
Mensa Award	0,5 K		2015
Platform Bètatechniek for book	10 K		2008
Mr. K.J. Cath-prize	2,5 K		2008
Dutch bloggers for best theme-blog and best-written blog	-		2007
Scholarship/Grant/Prize Formal co-applicant			
NWA Startimpuls Quantum/Nano	2.500K	150K	2017
Platform Bètatechniek for book	100K		2008

COMMITTEE WORK (SELECTION)

- * Head of the jury for The Libris Literature Award 2020
- * Advising Minister of Education, Culture and Science Ingrid van Engelshoven on science communication for the science policy letter (2019)
- * Since 2018: Supervisory board of science museum Boerhaave - European Museum of the Year 2019
- * Since 2018: Chair of Science Communication at Netherlands-Flanders Communication Association
- * Since 2017: Head of communication advisory board for Statistics Netherlands (CBS)
- * 2014-2015: Ambassador of national Weekend of Science

INVITED TALKS (SELECTION)

Yearly I am asked for over a hundred lectures. I select only a very small part of the invitations and try to make a good mix between expert talks on the science of science communication and popular-scientific lectures for audiences that do not easily get in touch with science. Some of the highlights from the last years include:

- * May 2019: Public interview with Abel Prize Laureate Karen Uhlenbeck for the The Norwegian Academy of Science and Letters
- * January 2018: Theater lecture *Take you chance* for children and adults
- * May 2017: Keynote about science communication at *Trends in theory*, the biennial symposium of the Dutch Research School of Theoretical Physics
- * October 2015: Keynote about science communication at the science communication award ceremony of the Royal Flemish Academy of Belgium for Science and the Arts

PERSONAL

I live in Leiden with my partner Han Keijzers, son Tex (2010) and daughter Rifka (2015). I am a proud member of a book club and was a guest DJ at the Best Kept Secret festival . I love visiting islands, spending time with my family and going to the theatre. In 2013 the magazine Kek Mama choose me as one of the forty most fabulous moms of the year.

PERSONAL INFORMATION

Date of birth: October 8th 1979
Place of birth: Delft, The Netherlands