

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 department Science Communication & Society with as main research themes *Bridging the gap between experts and laymen* and *Authenticity in informal learning*. My group consists of three assistant professors with each their own PhD students and postdocs. We are responsible for the master specialisation *Science Communication and Society* which yearly attracts 40-50 students from different backgrounds.

### **Science journalist, freelance — 2004-present**

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

### **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)

- \* Kristensen, S. W., Cramer, J., McCollam, A., Reijnierse, W. G., & **Smeets, I.** (2021). The matter of complex anti-matter: the portrayal and framing of physics in Dutch newspapers. *Journal of Science Communication*, 20(7), A02. doi: 10.22323/2.20070202
- \* Willems, S.J.W., Albers, C.J., & **Smeets, I.** (2020). Variability in the interpretation of probability phrases used in Dutch news articles—a risk for miscommunication. *Journal of Science Communication*, 19(2), A03. doi: 10.22323/2.19020203
- \* Cheplygina, V., Hermans, F., Albers, C., Bielczyk, 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
- \* 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
- \* **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 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 (SELECTION)

- \* Vendel, E. van de & **Smeets, I.** *Rekenen voor je leven*, Uitgeverij Nieuwezijds (2021).
- \* **Smeets, I.** *Superlogisch*, Uitgeverij Nieuwezijds (2020).
- \* Driessen, Y. & **Smeets, I.** *De verrassende verjaardagen - en andere nogal logische fotostrips* Uitgeverij Nieuwezijds (2019)
- \* **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 (SELECTION)

<b>Scholarship/Grant/ Prize Formal applicant</b>	<b>Amount in euros</b>	<b>Year of award</b>
LUF Lustrum Subsidy	150 K	2020
NWA Startimpuls 'Zwaartekracht - een nieuwe ontdekkingsreis.'	2.500 K	2017
LUF- Gratama	8,2 K	2017
Platform Bèatechniek for book	10 K	2008
Dutch bloggies for best theme-blog and best-written blog	-	2007
<b>Scholarship/Grant/Prize Formal co-applicant</b>		
APELAFICO	250 K	2020
COVCOM	500 K	2020
NWA Startimpuls Quantum/Nano	2.500K	2017
Platform Bèatechniek for book	100K	2008

## COMMITTEE WORK (SELECTION)

- \* 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
- \* 2017 -2020 Head of communication advisory board for Statistics Netherlands (CBS)
- \* 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)
- \* 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:

- \* October 2021: Book tour with Edward van den Vendel for children about mathematics.
- \* 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
- \* 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