

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 the general public* and *Evaluating Science Communication*. 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.

### **Coordinator of National Centre for Science Communication — 2022-present**

Together with Alex Verkade I have been appointed by minister Robbert Dijkgraaf to develop the set-up for the new Dutch National Centre for Science Communication.

### **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.

### **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)

- \* Driessen, J.E.P., Vos, D.A.C., **Smeets, I.**, & Albers, C.J. (2022). *Misleading graphs in context: Less misleading than expected*. PLoS ONE 17(6): e0265823. doi: 10.1371/journal.pone.0265823
- \* Hooykaas, M. J. D., Holierhoek, M. G., Westerveld, J. S., Schilthuizen, M., & **Smeets, I.** (2022). *Animal biodiversity and specificity in children's picture books*. Public Understanding of Science. doi: 10.1177/09636625221089811
- \* 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., 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
- \* 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
- \* Schat, J., Bossema, F.G., Numans, M.E., **Smeets, I.**, Burger, J.P. (2018). Overdreven gezondheidsnieuws. Relatie tussen overdrijving in academische persberichten en in nieuwsmedia. *Nederlands Tijdschrift voor Geneeskunde*, 162, 5.
- \* **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 AND OUTREACH (SELECTION)

- \* Creating and hosting segments for school television on mathematics (2007-current).
- \* Organising and hosting the Gala of Science and Society during Leiden City of Science 2022 together with New Scientist NL.
- \* 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 talkshows 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>
Zilveren Griffel <i>Rekenen voor je leven</i>	-	2022
LUF Lustrum Subsidy	150 K	2020
NWA Startimpuls 'Zwaartekracht - een nieuwe ontdekkingsreis.'	2.500 K	2017
LUF- Gratama	8,2 K	2017
Platform Bètatechniek 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 Bètatechniek for book	100K	2008

## COMMITTEE WORK (SELECTION)

- \* Since 2020: Scientific Advisory Board of Naturalis
- \* Since 2018: Supervisory board of science museum Boerhaave
- \* 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