

# **Curriculum vitae van Anne Fey**

homepage: <http://dutiosc.twi.tudelft.nl/~anne/>.

## **Opleiding**

- 1987-1993 studie technische natuurkunde, TU Eindhoven  
1994-1996 onderzoekersopleiding technische natuurkunde, TU/e  
1996-1997 1e graads lerarenopleiding natuurkunde, TU/e  
1997-1998 1e graads lerarenopleiding wiskunde, TU/e  
2004-2008 promotieonderzoek kansrekening, VU Amsterdam

## **Arbeidsverleden**

- 1994-1996 onderzoeker in opleiding, natuurkunde, TU/e en European Laboratory for Nonlinear Spectroscopy (LENS) (Florence)  
1997 en 1998 medewerker opleidingsinstituut technische natuurkunde, TU/e  
1998, 1999 en 2000 docent zomercursus natuurkunde, TU/e  
1999-2003 docent natuurkunde en wiskunde, Erasmus College Eindhoven  
2003-2004 leraar in onderzoek wiskunde, TU/e  
2004-2008 AiO kansrekening, VU Amsterdam  
2008 docent calculus, TU/e; en postdoc, Eurandom, TU/e  
2008-2010 UD, TU Delft  
mei 2010-2011 postdoc, CWI en VU Amsterdam.  
mei 2011 - ... UD, TU Delft.

## **Interesses**

- Sinds 1987 Lid van Spaanse muziekgroep “La Tuniña”, Diverse reizen, concerten, festivals en andere activiteiten. Ik zing, speel viool, mandolien en gitaar.  
2003 Lid van folk band “dr. Max and the Folks”.  
2001 - 2008 Lid van Spaanse en Country-band “Stressperadas”.  
sinds 2009 Lid van Countryband “Concrete Falls”.  
Sinds 2005 Tai chi en kung fu.  
Varierend Actief lid van diverse humanitaire organisaties, zoals Amnesty International, Vluchtelingenwerk, etc.

## Publications

### Mathematics

- Aernout van Enter, Anne Fey: Metastability thresholds for anisotropic bootstrap percolation in three dimensions,  
*Journal of Statistical Physics* 147, 97-112 (2012).
- Anne Fey, Haiyan Liu: Limiting shapes for a nonabelian sandpile growth model and related cellular automata,  
*Journal of Cellular Automata* 6, 353-383 (2011).
- Anne Fey, Lionel Levine, David Wilson: Driving sandpiles to criticality and beyond,  
*Physical Review Letters* 104, 145703 (2010).
- Anne Fey, Lionel Levine, David Wilson: The approach to criticality in sandpiles,  
*Preprint: <http://arxiv.org/abs/1001.3401>.*
- Anne Fey, Lionel Levine, Yuval Peres: Growth Rates and Explosions in Sandpiles,  
*Journal of Statistical Physics* 138, 143-159 (2010).
- Anne Fey, Haiyan Liu, Ronald Meester: Uniqueness of the stationary distribution and stabilizability in Zhang's sandpile model,  
*Electronic Journal of Probability* 14, 895-911 (2009).
- F. M. Dekking, L. van Driel, A. Fey: Stability in random boolean cellular automata on the integer lattice,  
*Journal of Cellular Automata* 5, 333-351 (2010).
- A. Fey-den Boer, R. Meester, F. Redig: Stabilizability and percolation in the infinite volume sandpile model,  
*Annals of Probability* 37 (2), 654-675 (2009).
- A. Fey-den Boer, F. Redig: Limiting shapes for deterministic centrally seeded growth models,  
*Journal of Statistical Physics* 130, 579-597 (2008).
- A. Fey-den Boer, R. Meester, C. Quant, F. Redig: A probabilistic approach to Zhang's sandpile model,  
*Comm. Math. Phys.* 280(2), 351-388 (2008).
- A. Fey-den Boer, R. van der Hofstad, M.J. Klok: Large deviations for eigenvalues of sample covariance matrices, with applications to mobile communication systems,  
*Advances in Applied Probability* 40 (4), 1048-1071 (2008).
- A. Fey-den Boer, F. Redig: Organized versus self-organized criticality in the abelian sandpile model,  
*Markov Proc. and Rel. Fields* 11(3), 425-442 (2005).
- Sandpile models: The infinite volume model, Zhang's model and limiting shapes,  
PhD Thesis, A. Fey-den Boer, <http://dare.uib.vu.nl/handle/1871/11714>.

## Physics

- A.C. Fey-den Boer, H.C.W. Beijerinck, K.A.H. van Leeuwen: High-power broad-area diode lasers for laser cooling,  
*Appl. Phys. B* 64, 415-417 (1997)
- A.C. Fey-den Boer, K.A.H. Van Leeuwen, H.C.W. Beijerinck, C. Fort, F.S. Pavone: Grating feedback in a 810 nm broad-area diode laser,  
*Appl. Phys. B* 63, 117-120 (1996)

## Didactics

- A. Fey: Schoolboeken en studieresultaten,  
*Euclides*, november/december 1999, 75 nr 3, p. 101-103.

## Talks (selection)

- anisotropic and continuum bootstrap percolation,  
march 2012, meeting on forest fires and related models, Toulouse, France.  
feb. 2012, lecture afternoon scaling limits, Eurandom, Eindhoven.
- Sandpiles, staircases and self-organized criticality,  
april 2011, MIT, Boston, USA.  
jan. 2010, Washington University, USA.  
okt. 2009, Cambridge, Engeland.
- Limiting shapes for a nonabelian sandpile growth model,  
jan. 2010, Microsoft Research, Washington, USA.
- Critical phase transitions in sandpile models,  
Maart 2009, Fribourg, Zwitserland.
- Sandpile percolation,  
Jan. 2008, Microsoft Research, Washington, USA,  
Sept. 2007, Workshop “Sandpile models and related fields”, Eurandom, Eindhoven.
- Quasiunits in Zhang’s sandpile model,  
Apr. 2008, AMS meeting, Bloomington, Indiana, USA.
- Zhang’s sandpile model,  
Jun. 2006, “La Pietra week” (Stochastic processes in Mathematical Physics conference), Florence, Italy.  
Jan. 2006, SMS-VVS PhD-afternoon, Amsterdam,  
May 2005, Meeting of PhD’s in stochastics, Hilversum,
- Spontane patroonvorming,  
Okt. 2007 and 2008, wetenschapsdag Leiden.
- Phase transitions in the sandpile model,  
May 2007, Meeting of PhD’s in stochastics, Hilversum.
- Het zandhoopmodel als groeimodel,  
Apr. 2007, Nederlands Mathematisch Congres, Leiden.

### **Presented posters**

- Anne Fey, The approach to criticality in sandpiles, ESF mathematics conference, Eindhoven (2010).
- A.C. Fey-den Boer and H. Liu: Zhang's sandpile model, Stochastics meeting, Lunteren (2007).
- A.C. Fey-den Boer: Sandpile percolation, Meeting of PhD's in stochastics, Hilversum (2007).
- A.C. Fey-den Boer: Deterministic internal growth models, Meeting of PhD's in stochastics, Hilversum (2006).
- A.C. Fey-den Boer, R. van der Hofstad, M.J. Klok: Linear interference cancellation in CDMA systems and large deviations of the correlation matrix eigenvalues, Proc. Symp. IEEE Benelux chapter on Comm. and Veh. Techn., Eindhoven (2003).

### **Miscellaneous**

nov 2010	Obtained the NWO "Meervoud" grant.
jan. 2008, 2009 and 2010	Invited visits of two weeks to Microsoft Research (Seattle).
April 2011	Combined visit of two weeks to MIT (Boston) and Microsoft Research.
october 2009	Invited visit of one week to Cambridge University.
2006,2007	I organized the poster presentation sessions at the 2006 and 2007 PhD stochastics meetings in Hilversum, and at the 2007 Dutch stochastics meeting in Lunteren. At both these annual meetings, poster presentations were a new event, introduced by me.
2003	Obtained the NWO "teacher in research" grant.