

CV as per  
March 17, 2017



## Andrei ZAVADA

### General

Born 4 November, 1973 in Kharkov, USSR (now Ukraine)  
Languages Russian (mother tongue), English, Ukrainian; French and Dutch (functional)  
Married 2007, with two kids (2012, 2014)  
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### Degrees and Qualifications

2007 **PhD** in *Physiology* from the University of Groningen, The Netherlands. Dissertation Title: Defining and determining the properties of the human sleep homeostat. Supervisor & promotor: Domien G. M. Beersma.  
1997 **Masters** in *Entomology* from Kharkov State University, Ukraine.

### Affiliations/Employers

November December 2014–April 2017 (a major contractor of) **Basho Inc**, remotely from Ukraine: **Software Engineer (Erlang)**  
November 2013–December 2014 **Massive Solutions**, Ukraine: **Software Engineer (Python)**  
June–October 2013 **Clove Consulting Inc.**, USA/Ukraine: **Software Engineer (C++)**  
December 2012–May 2013 **eMICT/Lotosoft**, Ukraine: **Software Engineer (C++)**  
July 2012–December 2012 **StrikeAd**, Ukraine: **Software Engineer (Erlang)**  
June 2010–May 2012 **Massive Solutions**, Ukraine: **Software Engineer (Erlang)**  
2008–10 University of Sussex, UK: **Postdoctoral research fellow**  
2002–6 University of Groningen, The Netherlands: **PhD student**  
1998–9 Schmalhausen Institute of Zoology, Kiev, Ukraine

## Skills

### Researcher

- Human sleep research laboratory work: mounting EEG electrodes, recording and scoring EEG.
- Radioimmunoassay analysis; qualified to work with radioactive materials.
- General entomology (with expertise in Hymenoptera: Torymidae): field collecting, museum work.

### Programmer

- C and C++: omp; gsl, boost, MPI.
- Emacs,  $\LaTeX$ , Octave, Gnuplot, Maxima, R; GIMP, Inkscape, Scribus.
- Packaging (Debian).
- Functional JavaScript, HTML, MySQL, some PHP.

## Projects

- Munich ChronoType Questionnaire (the online version).
- **Aghermann**, a sleep-research experiment manager, with a facility for reading, displaying, and scoring EEG recordings in EDF format; power spectra analysis and visualization; and Process S simulation following Achermann et al, 1993. I am also packaging and maintaining it for Debian.
- **CNrun**, a neuronal network simulator using NML for network description. Provides conductance- and rate-based Hodgkin–Huxley neuron models, and a number of other neurons & synapses. A 5-6-order RK method is used for integration. Very precise but slow; basic scripting capabilities. Packaged for Debian by me.

## Memberships

2006–*by now virtually expired*      Sleep Research Society of The Netherlands.

## Participation in conferences

- |                |                                                                                                                                                                                                                                                                         |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| June 2003      | Oral presentation <i>A survey of chronotypes using the Munich ChronoType Questionnaire in The Netherlands</i> at the <b>2nd meeting of the BrainTime project</b> (Hanover, Germany).                                                                                    |
| October 2004   | Poster presentation <i>Sleeping habits and circadian preference as revealed by the Munich Chrono-type Questionnaire and Horne-Östberg Morningness-Eveningness Questionnaire</i> at the <b>17th ESRS conference</b> (Prague, Czech Republic).                            |
| September 2005 | Oral presentation <i>Characteristics of sleep in early and late chronotypes</i> at the <b>4th meeting of the BrainTime project</b> (Rotterdam, The Netherlands).                                                                                                        |
| April 2006     | Oral presentation <i>Finding sleep debt</i> at the <b>BCN Retreat</b> (Doorwerth, The Netherlands).                                                                                                                                                                     |
| June 2008      | Poster presentation <i>Slow-wave activity self-dissipation efficiency estimates suggest sleep homeostasis restricted to frontal cortex</i> at the <b>SLEEP 2008 22nd Annual Meeting of the Associated Professional Sleep Societies, LLC</b> (Baltimore, Maryland, USA). |
| February 2009  | Poster presentation <i>A neuronal network model for the detection of binary odour mixtures</i> at <b>COSYNE Conference</b> (Salt-Lake City, USA).                                                                                                                       |
| March 2009     | Oral presentation <i>Defining and determining the properties of the human sleep homeostat</i> at the <b>Center for Sleep and Consciousness, University of Wisconsin – Madison</b> .                                                                                     |

## Invited talks

- March 2009 *Defining and determining the properties of the human sleep homeostat* at the **Center for Sleep and Consciousness, University of Wisconsin – Madison.**

## Collaborations

- 2000 CABI, Delémont, Switzerland: A project on biological control of Sulphur Cinquefoil.  
2003–6 Chronobiology Group, University of Groningen, The Netherlands: Projects BRAINTIME (EC FP5) and EUCLOCK (EC FP6).  
2003 The Natural History Museum, London, UK: revision of world material of *Ecdamua* Walker (Torymidae).

## Other academic activities

- 2005–present Refereed articles for *Sleep Medicine*, *Brazilian Journal of Medical & Biological Research*, *Entomological Problems*.

## Publications

10 publications in peer-reviewed journals

- 2011 ZAVADA A, BUCKLEY CL, MARTINEZ D, ROSPARS J-P, NOWOTNY T. Competition-based model of pheromone component ratio detection in the moth. *PLoS ONE* **6**(2):e16308. doi:10.1371/journal.pone.0016308.
- 2009 ZAVADA A, STRIJKSTRA AM, BOEREMA AS, DAAN S, BEERSMA DG. Evidence for differential human slow-wave activity regulation across the brain. *Journal of Sleep Research* **18**(1):1-2.
- 2007 ZAVADA A, BEERSMA DGM, GORDIJN MCM, DAAN S. A method to determine the true homeostatic components of sleep regulation in humans. In: *Sleep-Wake Research in the Netherlands* Vol. 17, Ruijt GSE, van Bommel AL, de Boer T, van Kasteel V & van Luijteleaer G (Eds.), NSWO, Leiden, The Netherlands, pp 133-5.  
ZAVADA A. Notes on *Ecdamua nambui* (Hymenoptera: Torymidae), with a key to world *Ecdamua* species. *Phegea*, **33**(4):155-60.
- 2005 ZAVADA A, BEERSMA DGM, GORDIJN MCM, DAAN S, ROENNEBERG T. Comparison of the Munich Chronotype Questionnaire with the Horne-Östberg's morningness-eveningness score. *Chronobiology International*, **22**:267-78.  
ZAVADA A, GORDIJN MCM, BEERSMA DGM, DAAN S. Human chronotypes. *BCN Annual report 2002-2003*, pp 115-8.
- 2004 ZAVADA A, BEERSMA DGM, GORDIJN MCM, DAAN S, ROENNEBERG T. Sleeping habits and morningness-eveningness preference in a Dutch population. In: *Sleep-Wake Research in the Netherlands* Vol. 15, NSWO, Leiden, The Netherlands, pp 117-8.
- 2003 ZAVADA A. Definition of subgenera and a reassessment of species groups of *Torymus* Dalman (Hymenoptera: Torymidae), based on Palearctic material. *Phegea*, **31**(3):91-120.  
ZAVADA A. New species of *Torymus* (Hymenoptera: Torymidae) from Central Asia and Caucasus. *Phegea*, **29**(3):99-107.
- 2001 ZAVADA A. New Palearctic species of *Torymus* (Hymenoptera, Torymidae). *Entomological Problems*, **32**(1):85-90.

## References

Prof. Domien G. M. Beersma, PhD supervisor

Dr. Arjen M. Strijkstra, Collaborator

Dr. Vlad Viazovsky, good old friend

Dr. Thomas Nowotny, Group leader