

Émilien Tlapale

<http://emilien.tlapale.com>

41, av. Reibaud
06600 ANTIBES
France

✉ emilien@tlapale.com
☎ +33 4 92 38 76 48
📞 +33 6 18 31 18 38



French and Mexican nationalities
Born on 8 February, 1985, in Nice (France)
Marital life, 1 child

WORK & EDUCATION

- since Feb. 2011* Short postdoctoral contract at INRIA Sophia Antipolis
Multi-stability, bifurcations, target selection, trajectory anticipation
- 2007–2011* PhD in *computational neuroscience* at the University of Nice – Sophia Antipolis
“Modeling the dynamics of contextual motion integration in the primate”
Supervised by Pierre Kornprobst (INRIA) and Guillaume S. Masson (CNRS)
Prepared at the INRIA Sophia Antipolis, in the Neuromathcomp project team
- Defended on* 25 January 2011
Jury members F. Alexandre, J.A. Bednar, O.Faugeras, J. Lorenceau, E. Mingolla, G. Peyré
Training courses GPGPU, benchmarking and optimization, scientific communication
Contractual context European project SEARISE building an active stereo visual system inspired from the mammalian visual cortex and able to learn from and self-adjust to the visual input
- 2006–2007* Master degree in *imaging and geometry for life sciences* at the University of Nice – Sophia Antipolis
- 2002–2006* Bachelor and first year of Master in *theoretical computer science* at the University of Nice – Sophia Antipolis

SKILLS

- Computer science* Strong background in theoretical and practical computer science, including: parallel computation (GPGPU, openMP, MPI), numerous programming languages (such as Python, Java, C or assembly), server administration (Linux, FreeBSD)
- Applied mathematics* Signal processing (image and motion analysis), numerical analysis (integration, bifurcation analysis), neural fields equations (integro differential equations)

COMMUNICATION

- Journals* Modelling the dynamics of motion integration with a new luminance-gated diffusion mechanism (2010). É. Tlapale, G.S. Masson, P. Kornprobst *Vision Research*, vol. 50, issue 17, pp. 1676–1692
- Bio-inspired motion estimation: From model to evaluation, can biology be a source of inspiration? É. Tlapale, P. Kornprobst, G.S. Masson, O. Faugeras, J.D. Bouecke, H. Neumann *In review, see INRIA research report 7447*
- Neural mechanisms of motion detection, integration, and segregation: From biology to artificial image processing systems (2011). J.D. Bouecke, É. Tlapale, P. Kornprobst, H. Neumann *EURASIP Journal on Advances in Signal Processing*, vol. 2011, article ID 781561, 22 pages

- Proceedings*
- A neural field model for motion estimation (2011). É. Tlapale, P. Kornprobst, G.S. Masson and O. Faugeras. To appear in *Mathematical image processing*, Springer Proceedings in Mathematics, vol 5
- Evaluating motion estimation models from behavioural and psychophysical data (2010). É. Tlapale, P. Kornprobst, G.S. Masson, O. Faugeras, J.D. Bouecke, H. Neumann *Bionetics, Special Track on Bio-Inspired Machine Vision (BIMV)*
- Motion integration modulated by form information (2008). É. Tlapale, G.S. Masson, P. Kornprobst *Neurocomp, the French computational neuroscience conference*
- Navisio: Towards an integrated reading aid system for low vision patients (2008). J.-B. Bernard, É. Tlapale, G. Faure, É. Castet, P. Kornprobst *Computer Vision Applications for the Visually Impaired (CVAVI)*
- Conference abstracts*
- A dynamical neural model of motion integration (2010). É. Tlapale, G.S. Masson, P. Kornprobst *Vision Sciences Society conference (vss)*
- SolairePDF, un logiciel d'aide à la lecture de documents PDF pour les patients basse vision (2008). J.B. Bernard, É. Tlapale, A. Calabrese, É. Castet, P. Kornprobst *Journal français d'ophtalmologie*, 31
- Model of motion field diffusion controlled by form cues (2007). É. Tlapale, G.S. Masson, T. Viéville, P. Kornprobst *European Conference on Visual Perception (ECVP)*

TEACHING

- 2007–2011 C++ classes for the final year electronic students at **Polytech'Nice** engineering school 30 hours per year
- 2007 System programming in C on Linux at **IUT** technical school, University of Nice – Sophia Antipolis 30 hours
- June 2006 C classes at the University of Nice – Sophia Antipolis 10 hours

MISCELLANEOUS

- Languages* Mother tongues: French and Spanish, English communication, Esperanto, modern Greek (lived two years in Athens)
- Hobbies* Climbing, hiking, biking, photography

REFERENCES

Pierre KORNPBST
PhD advisor
Researcher at INRIA
Sophia Antipolis, France
✉ Pierre.Kornprobst@inria.fr
☎ +33 4 92 38 79 79

Guillaume S. MASSON
PhD advisor
Research Director at CNRS
Marseille, France
✉ Guillaume.Masson@incm.cnrs-mrs.fr
☎ +33 4 91 16 43 15

Heiko NEUMANN
Collaborator
Professor at Ulm University
Ulm, Germany
✉ heiko.neumann@uni-ulm.de
☎ +49 731 50 24 158