

Program

Tuesday, March 26

- 14:00 **Mallot, H.A.** (Tübingen): *Welcome*
- 14:10 **Floreano, D.** (Lausanne): *CURVACE Overview*

Session 1: Compound Optics and Imaging

14:30	Scharf, T. (Neuchâtel): <i>Concepts for miniaturized vision systems based on micro-optics</i>
15:15	<i>Coffee</i>
15:45	Brückner, A., Leitel, R., Dannberg, P., Bräuer, A. (Jena): <i>Artificial compound eye vision</i>
16:15	Leitel, R., Brückner, A., Buß, W. Dannberg P., Bräuer A. (Jena) <i>Microoptics fabrication and integration</i>
16:45	Belay, G.Y. (Brussels): <i>Multi-channel, multi-resolution smart imaging system</i>
17:00	<i>Posters</i>
19:30	“À la carte” Conference Dinner at the Restaurant “Museum” (for address and location see p. 28/29)

Wednesday, March 27

Session 2: Motion Detection and Circuits

- 9:00 **Dickinson, M.** (Seattle) *Gain modulation in motion-sensitive neurons of Drosophila*
- 9:45 **Viollet, S.** (Marseille): *Active vision and hyperacuity*
- 10:15 *Coffee*
- 10:45 **Expert, F.** (Aix-Marseille): *BeeRotor arial robot: Altitude and speed control based on optical flow*
- 11:15 **Franceschini, N.** (Marseille): *Elementary movement detectors in insects and robots: Old and new analyses and developments*
- 11:30 *Poster Clips* (1-2 slides / 5 min. per poster)
- 12:30 *Lunch break*

Session 3: Optic Flow

- 14:00 **Srinivasan, M.V.** (Brisbane) *Of bees, birds, and flying machines*
- 14:45 **Yuan, C.** (Köln), **Mallot H.A.** (Tübingen): *Visual motion analysis for robotic perception and navigation*
- 15:15 **Stürzl, W.** (Oberpfaffenhofen): *What does a bee see? Modelling the visual input of flying insects*
- 15:45 *Coffee*
- 16:15 *Tour of the University Museum*
- 17:30 *Posters*

Thursday, March 28

Session 4: Applications

9:00	Zufferey, J.-C. (Lausanne) <i>On the use of optic-flow in commercial minidrones</i>
9:30	Pericet-Camara, R. (Lausanne) <i>CURVed Artificial Compound Eyes with fixed panoramic field of view: Characterization and applications</i>
10:00	<i>Coffee</i>
10:30	Dobrzynski, M. (Lausanne) <i>Towards wearable vision: promises, challenges and recent development</i>
11:00	Briod, A. (Lausanne): <i>Ego-motion estimation from optic-flow and inertial sensors fusion</i>
11:20	Philippides, A. (Brighton): <i>Insect-inspired route navigation</i>
11:40	Wittlinger, M. (Ulm) <i>Visual odometry in the desert ant <i>Cataglyphis</i></i>

12:30 Lunch, End of Workshop

Poster Presentations

1. Oswald **Berthold** (Humboldt Universität, Berlin) *Self-supervised learning of visuo-inertial sensory-motor relationships*
2. Wolfgang **Buß** (FHG Jena) *Special topics of assembly and integration*
3. Fabien **Colonnier** (Aix-Marseille University) *Implementation of the 'time of travel' scheme on an artificial compound eye*
4. Hansjürgen **Dahmen** (Universität Tübingen) *Ego-motion detection with a panoramic sensor built on optical mouse chips*
5. David **Fleer**, Michael **Horst** (Universität Bielefeld) *Biologically inspired visual navigation system for an autonomous mobile robot*
6. Raphael **Juston** (Aix-Marseille University) *Bio-inspired hyperacute position sensing device for the control of micro-aerial robots*
7. Jens Peter **Lindemann** (Universität Bielefeld) *Contrast normalizing extension of correlation motion detection*
8. Thomas **Linkugel** (AirRobot AG, Arnsberg) *Model-based 3D real simulation of micro-UAS*
9. Hanspeter A. **Mallot**, Till **Becker**, Gregor **Hardieß**. (Universität Tübingen) *Ego-motion from optic flow: Evidence for a matched filter mechanism*
10. Guillaume **Sabiron** (Aix-Marseille University) *Bio-inspired low-speed optic flow sensor tested flying over fields*
11. Annette **Werner** (Universität Tübingen) *3D-object recognition in bees*