



# Salon de l'Argentine

Monday, August 8



## Program

Time	
	<div style="text-align: center;">  <p><b>Artificial Autonomy 20 years later</b></p> <ul style="list-style-type: none"> <li>▪ Tom Froese</li> <li>▪ Matthew Egbert</li> <li>▪ Xabier Barandiaran</li> </ul> </div> <p><b>WAAT - Workshop on Artificial Autonomy: 20 years of practice of autonomous systems</b></p> <p>Autonomy is a system's capacity to produce, sustain and regulate itself and its relationship with the environment it co-determines. WAAT will evaluate 20 years of practice of autonomous systems, from the first ECAL (1991) until today, and review the state of the art, future challenges and research milestones. The notions of autonomy, autopoiesis, emergence, enaction, etc., have played a central role in Artificial Life but have also experienced a relative displacement as the field has made progress in more specific and specialized research fields (from network topology to ant intelligence, from evolutionary robotics to multicellular development). We believe that increasingly specialized trends in Alife should also be compensated with renewed attempts for integrative approaches. In this sense, reviewing and recovering the visionary and pioneering notion of autonomy 20 years later provides a challenging opportunity to re-assemble Artificial Life back into the organism-centered, emergent, holistic yet mathematically and conceptually mature notion of autonomy.</p>
<p><b>9:00-13:00</b></p> <p>Open coffee break <b>10:00-12:00</b> [Lobby]</p>	<p>09:00-09:05 <i>Opening remarks by the organizers</i> (Tom Froese, Matthew Egbert, and Xabier Barandiaran)</p> <p>09:05-09:30 Xabier Barandiaran: "Introduction to the practice of autonomous systems"</p> <p>09:30-10:15 Paul Bourguine: "Reflections on Varela, ECAL, and artificial autonomy"</p> <p>10:15-11:00 Ben Shirt-Ediss, Ricard Solé, Fabio Mavelli, and Kepa Ruiz-Mirazo: "On the chemical relevance of compartment 'self-production'"</p> <p>11:00-11:30 <i>Coffee break</i></p> <p>11:30-12:00 Theije Visser, Rineke Verbrugge, and Tjeerd Andringa: "Affective agents bridge the gap between life and mind"</p> <p>12:00-12:45 Nathaniel Virgo: "Metabolism and Behaviour in Simple Dissipative Structures"</p> <p>12:45-13:00 <i>General Discussion</i></p>
<p><b>13:00-14:30</b> [Halls]</p>	<p><b>Lunch Break</b></p>
<p><b>14:30-18:30</b></p> <p>Open coffee break <b>15:30-17:30</b> [Lobby]</p>	<p>14:30-15:00 Marzena Maria Bihun, Georg Martius, and J. Michael Herrmann: "Closing the Loop: From Self-Organization of Behaviour to Minimal Agency and Back"</p> <p>15:00-15:30 Norihiro Maruyama, Geoff Nitschke, and Takashi Ikegami [presented by Ikegami]: "A Dynamic Soundscape"</p> <p>15:30-16:00 Alberto Montebelli: "Ecological autonomy: the case of a robotic model of biological cognition"</p> <p>16:00-16:30 <i>Coffee break</i></p> <p>16:30-17:00 Tom Froese, Takashi Ikegami: "A quantum theory of biological autonomy at the macro-level"</p> <p>17:00-17:45 Maël Montévil, and Matteo Mossio: "The idea of closure in autonomous systems"</p> <p>17:45-18:25 <i>General Discussion / Panel discussion</i></p> <p>18:25-18:30 <i>Closing Remarks by the organizers</i> (Tom Froese, Matthew Egbert, and Xabier Barandiaran)</p>