IMAV 2017
International Micro Air Vehicle Conference and Flight Competition
Toulouse, France, September 18-22, 2017
Toulouse, France

- South West of France
- 850,000 inhabitants

Founded in 1229
Toulouse,
*European Aeronautics & Space Pole*

**Aeronautics**: AIRBUS Group, ATR, SAFRAN, THALES, Liebherr Aerospace, Rockwell Collins, Latécoère, Air France
- Manpower: 53,000, including 5,000 researchers
- Leading European centre for civil aviation industry

**Space**: ASTRIUM, THALES ALENIA SPACE, CNES
- Manpower: 12,000 (25% of the European manpower)
- Leading European centre for satellites industry and earth observation
IMAV 2017

*International Micro Aerial Vehicle Conference & Flight Competition*

**Toulouse, 18-22 Septembre 2017**

- Organized by the MAV Research Center
  - Gathering several research institutes in Toulouse involved in UAV development and applications, including ISAE-Supaero and ENAC
- IMAV 2014 (Delft), IMAV 2015 (Aachen), IMAV 2016 (Beijing)
- IMAV 2017 & **UGS 2017** (UAV Convention)
  - Scientific Conference
  - Flight competition & UAV air show
Competition rules
key points

- Aircraft efficient and innovative designs
- Small and light MAVs
- Autonomy and image processing
- Multi-UAV cooperation

- 2 competition prizes
- Several awards (design, autonomy, ...)

Indoor flight session

- Indoor session with outdoor features: wind, vegetation, building intrusion
- Drones for doing things: sensor dropping, image identification
- Autonomy: obstacle avoidance, multi-UAV collaboration
Indoor / Outdoor cooperative flight

• At least 2 drones
• ... to carry a weight

~10 (indoor) or 50 (outdoor) m
Outdoor flight session

- Scanning of a hangar
  - outdoor / indoor
  - Locate hazardous elements / missing people
- Performance pole race
- Fixed-wing MAV or rotorcraft MAV
The treasure hunt challenge

- Buried metal mass
- To be located by a drone
Drone team parade trophy

- At least 3 airplanes
- Autonomous formation flight
- Synchronized fixed pattern in straight line
See you in France in 2017!