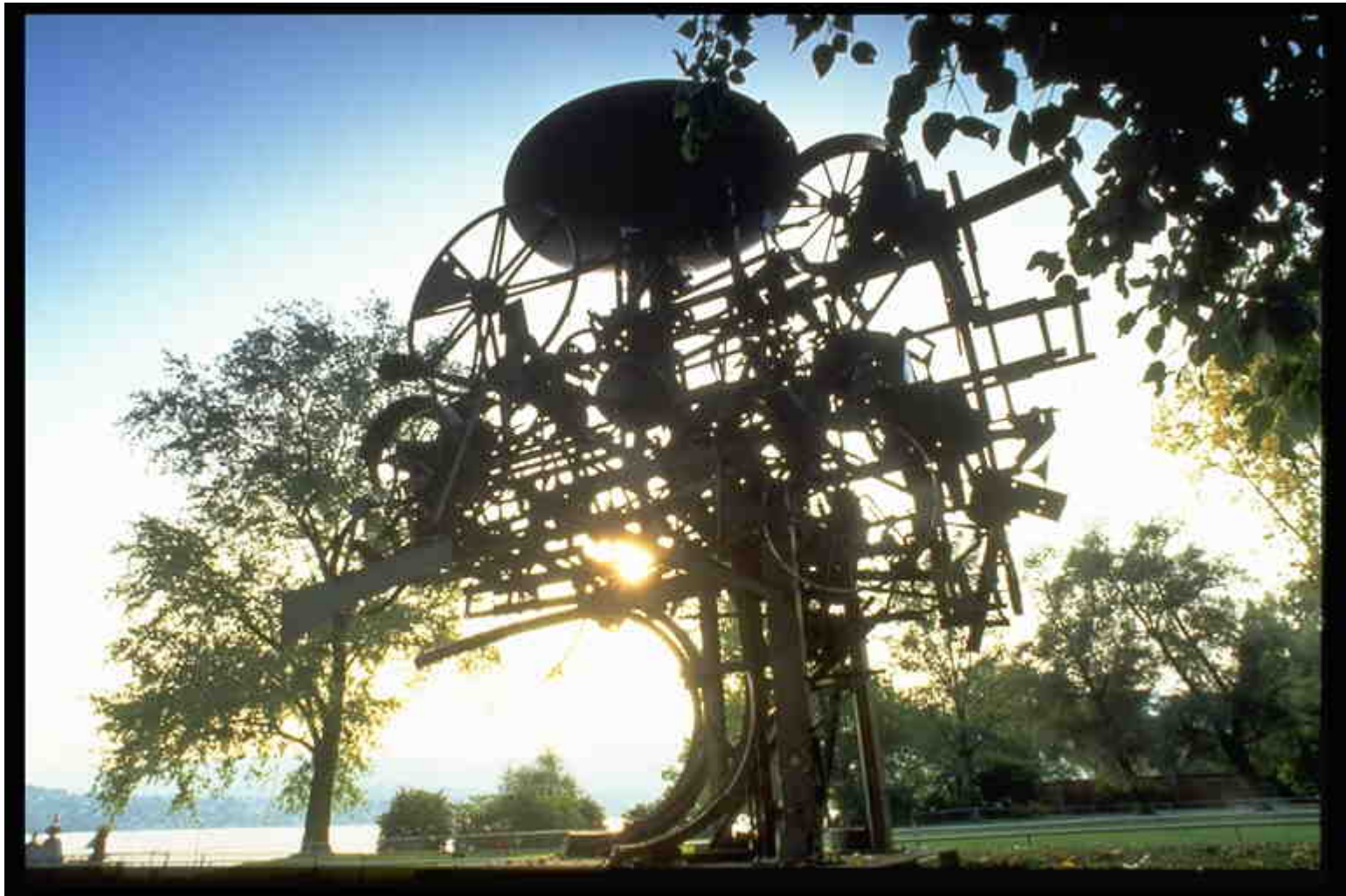


JRA1



(Jean Tinguely: Heureka)

# Joint Research Activities: JRA1

- 5.1: Improved analytical methods for organic compounds
- 5.2: Improved analytical methods for inorganic traces gases and radicals
- 5.3: Improved experimental techniques for generation and characterization of physical particle properties
- 5.4: Improved experimental approaches in the design of experiments
- 5.5: Development of techniques and exchange of experience for studying surface reactions in simulation chambers.

# 5.1: Improved analytical methods for organic compounds

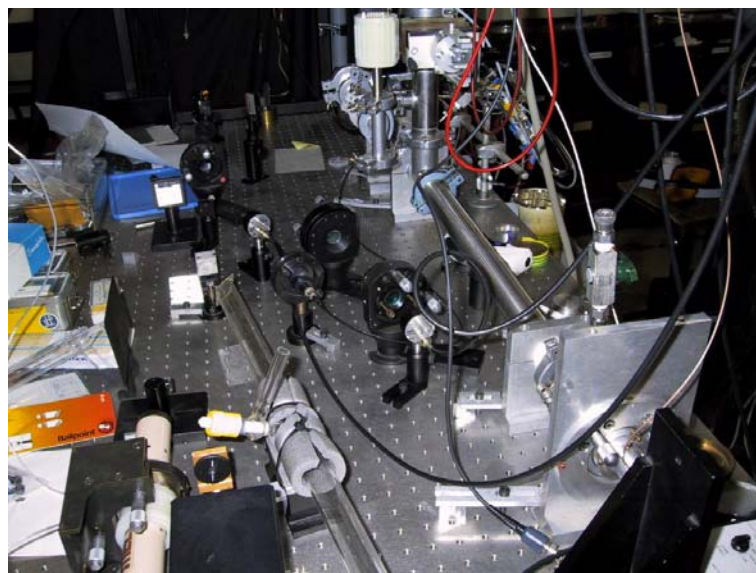
- On-line **gas** phase measurement techniques
- Off-line **gas** phase measurement techniques
- On-line **particle** phase measurement techniques
- Off-line **particle** phase measurement techniques



Aerodyne ToF-AMS

## 5.2: Improved analytical methods for inorganic traces gases and radicals

- **Cavity Spectroscopies**
- **Tuneable Diode Laser Spectroscopy**
- **Fluorescence Techniques**
- **Mass spectrometry techniques**
- **Chemical conversion techniques**
- **Radical clock technique**
- **Improved data analysis system**



CEAS UCC

## 5.3 Improved exp. techn. for generation and characterization of physical particle properties

- Improved techniques for generating seed particles for hygroscopic growth, CCN activation freezing and chemical transformation experiments
- Improved techniques for characterizing droplets and ice particles (hydrometeors)
- Evaluation of different instruments quantifying hygroscopic growth and activation behaviour of chemically complex aerosol particles
- Improved techniques for investigating organic aerosol ageing processes



LACIS; IFT Leipzig

## 5.4 Improved experimental approaches in the design of experiments

- **Non-conventional SOA precursors**
- **Improved methods for traditional oxidant addition**
- **Improvement of seeded SOA formation experiments**
- **Improved procedures for assessment of temperature dependence of SOA formation**
- **Characterization of turbulence effects in simulation chambers**



## 5.5 Development of techniques and exchange of experience for studying surface reactions in simulation chambers.

- **Photo-catalytic self-cleaning and “de-polluting” materials**
- **Indoor (wood, polishes, paints) materials**
- **Inter-comparison of chambers using the same material and protocol**



LOPAP → HONO