

COMPANY

AFG Paris

RESEARCH CENTRE

Laboratoire de Mathématiques
Appliquées du Havre

PRODUCTIVE SECTOR

Energy and Environment

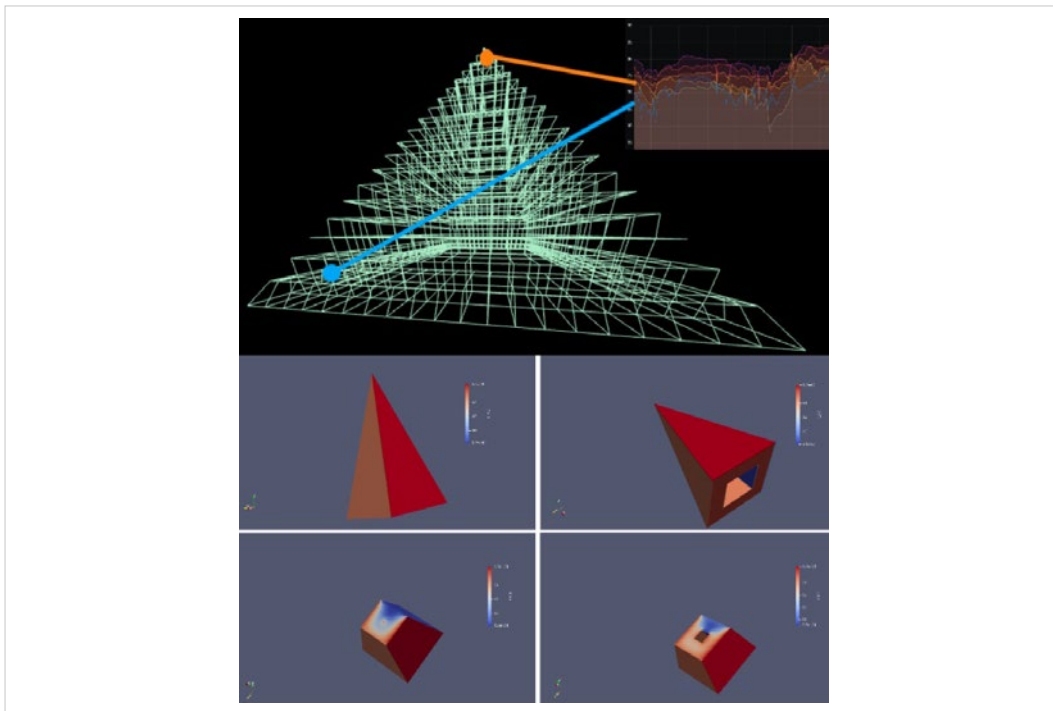


[More info](#)

SS_038_2022

MTHC

Real Time Environmental Control.
Modeling Temperature and Humidity in Complex buildings.



Numerical solutions of energetic fluxes with collected data from connected objects in a complex geometrical environment.

PROBLEM DESCRIPTION

Provide numerical solutions of temperature and humidity fluxes in 3 buildings with integration of connected data. Use of these solutions to control efficiently temperature and humidity.

MATHEMATICAL AND COMPUTATIONAL METHODS

Mathematical solutions based on statistical treatment of data, dynamical systems and optimization.

CHALLENGES AND GOALS

- ✓ Integration of connected data in real time.
- ✓ Efficient numerical implementation.
- ✓ Energetic control and optimization in complex environment.

COMPANY

AFG Paris

RESEARCH CENTRE

Laboratoire de Mathématiques
Appliquées du Havre

PRODUCTIVE SECTOR

Energy and Environment



[More info](#)

SS_038_2022

MTHC

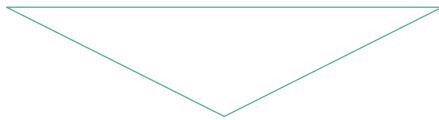
Real Time Environmental Control.
Modeling Temperature and Humidity in Complex buildings.

RESULTS AND BENEFITS

The collaboration allowed to collect a huge amount of data and compute solutions associated with the data and the physical geometry.

This opens the path to concrete optimized solutions for an efficient control of the energetic problem in buildings with complex geometry.

The methods can be generalized and extended to other problems.



More comfort and less cost.

**Original mix of data collection
in real time with connected
objects, statistical and numerical
implementation for optimized
comfort with less energetic
consumption.**

