



10<sup>th</sup> International Conference on Control,  
Decision and Information Technologies

July 01 - 04, 2024

Valletta, Malta

## CALL FOR PAPERS - SPECIAL SESSION

“ Study the effect of wind variance, Eulerian and the Lagrangian integral time scales on the dispersion parameters”

for **CoDiT 2024**

**July 01-04, 2023** ▪ **Valletta, Malta**

### Session Co-Chairs:

Prof. Khaled S.M. Essa, Department of Mathematics and Theoretical Physics, Nuclear Research Centre, Egyptian Atomic Energy Authority, Cairo, Egypt. - (email: [mohamedksm56@yahoo.com](mailto:mohamedksm56@yahoo.com))

Prof. H. M. Taha, Department of Mathematics and Theoretical Physics, Nuclear Research Centre, Egyptian Atomic Energy Authority, Cairo, Egypt. - (email: [hanaataha3@yahoo.com](mailto:hanaataha3@yahoo.com))

### Session description:

The simplest meaningful statistical measures of dispersion, we can compute the mean-square parameters displacement  $\bar{X}^2(t)$ ,  $\bar{Y}^2(t)$  and  $\bar{Z}^2(t)$  which must be increasing functions of time. This is in contrast to the variances of Lagrangian velocity fluctuations which must be independent of time in a stationary and homogeneous field of turbulence and equal to the corresponding Eulerian velocity variances. For small diffusion time, the mean-square particle displacement increases in proportion to square of diffusion time “ $t^2$ ”. For large diffusion time, the mean-square diffusion eventually becomes proportional to Lagrangian integral time scale “ $T_{iL}$ ” and diffusion time “ $t$ ”. Considering these dispersion parameters in Gaussian diffusion model in three dimensions. These concentrations results are compared with experimental data of Iodine-135 which collected in a convective boundary layer at Egyptian Atomic Energy Authority. This special session is targeted to researchers working in this multidisciplinary field.

Areas of interest include, but are not limited to:

- Applied Mathematics
- Atmospheric Dispersion Modelling
- Environmental Physics

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### SUBMISSION

Papers must be submitted electronically for peer review through PaperCept by **February 03, 2024:**

<http://controls.papercept.net/conferences/scripts/start.pl>. In PaperCept, click on the **CoDiT 2024 link** “Submit a Contribution to CoDiT 2024” and follow the steps.

**IMPORTANT:** All papers must be written in English and should describe original work. The length of the paper is limited to a maximum of 6 pages (in the standard IEEE conference double column format).

### DEADLINES

**February 03, 2024:** deadline for paper submission

**April 14, 2024:** notification of acceptance/reject

**May 10, 2024:** deadline for final paper and registration