

## **Modeling ozone behavior during MILAGRO campaign applying fuzzy techniques**

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The research presented in this work is centered on the study and development of modeling methodologies that allow emulation of the ozone behavior. The present work aims to develop Fuzzy Inductive Reasoning (FIR) models and its application to long term prediction of maximum ozone concentration in the central region of Mexico City Metropolitan Area during March 2006, into the frame of MILAGRO campaign. FIR offers a model-based approach to modeling and predicting either univariate or multivariate time series. The data were registered every hour and include missing values. The number of variables considered, the high frequency of the signals (hourly models) and the fact that it is intended to perform long term predictions, increases the complexity of the application. The results show that the model developed emulates the dynamic behavior of ozone contaminant in an accurate manner.