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### A Trip to Work: Estimation of origin and destination of commuting patterns in the main metropolitan regions of Haiti using CDR

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#### Abstract

The rapid, unplanned urbanisation in Haiti creates a series of urban mobility challenges which can contribute to job market fragmentation and decrease the quality of life in the city. Data on population and job distributions, and on home-work commuting patterns in major urban centres are scarce. The most recent census took place in 2003 and events such as the 2010 earthquake have caused major redistributions of the population. In this data scarce context, our work takes advantage of nationwide de-identified Call Detail Records (CDR) from the main mobile operator in the country to investigate night and daytime populations densities and commuting patterns. We use a non-supervised learning algorithm to identify meaningful locations for individuals. These loca-

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