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Supplemental Material

Prenatal Exposure to Air Pollution and Autism Spectrum Disorder: Sensitive Windows of Exposure and Sex Differences

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Table S1. Characteristics of samples included vs. excluded.

Table S2. Air pollutants concentrations during entire year, dry season, and wet season.

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Figure S1. Deviation of study sample.

Figure S2. Distribution of PM_{2.5}, NO₂, and O₃ concentrations during pregnancy across birth year 2001-2014. The solid, long dash, dotted boxes represent the distribution of PM_{2.5}, NO₂, and O₃, respectively. The box shows the interquartile range, the line in the box is the median, and the diamond is the mean. The whiskers represent the upper 25% and lower 25% of the data.

Figure S3. Association between weekly PM_{2.5}, NO₂, and O₃ exposures over gestation and ASD among boys and girls when follow-up was censored at child age five such that all children reached the minimum of age 5 with a maximum follow-up till age 5 (N= 294,937). Gray shade indicates 95% confidence intervals; dashed vertical lines demarcate trimesters. All the models were adjusted for child sex, maternal race/ethnicity, maternal age at delivery, parity, education, maternal comorbidities, medical centers, household income, birth year, and season.

Figure S4. Association between weekly PM_{2.5}, NO₂, and O₃ exposures over gestation and ASD among boys and girls when only full-term births ≥ 39 gestational weeks were included (total 220,981 singleton children). Gray shade indicates 95% confidence intervals; dashed vertical lines demarcate trimesters. All the models were adjusted for child sex, maternal race/ethnicity, maternal age at delivery, parity, education, maternal comorbidities, medical centers, household income, birth year, and season.

Figure S5. Association between weekly PM_{2.5}, NO₂, and O₃ exposures over gestation and ASD among boys and girls when further adjusting for pre-pregnancy obesity and diabetes along with covariates included in primary analyses. Gray shade indicates 95% confidence intervals; dashed vertical lines demarcate trimesters.

Example R code of DLM modeling