

# Generalized Additive Model for Traffic

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# Generalized Additive Model (GAM)

- ① Explanatory variables: Hour of day ( $h$ ), month of year ( $m$ ), and post-Covid indicator ( $p$ )
- ② Target variable: Hourly traffic volume

Assumptions:

- ① The target (output) variable *varies smoothly* in response to the explanatory (input) variables.
- ② The function we are modelling can be decomposed into a sum of functions.

$$f(h, m, p) = s_1(h) + s_2(m) + s_3(ph)$$

# GAM Example

