# Done & To-Be-Done

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June 8, 2016

## 1  Done

1. Normal

    - Sparse GP + normal random effect + normal error
    - Cosine basis + normal random effect + normal error

2. Binary

    - Sparse GP + normal random effect: probit
    - Cosine basis + normal random effect: probit
    - Cosine basis + normal random effect: logistic

## 2  To-Be-Done

1. GLM

    (a) Normal
        - Cosine basis + DPM random effect + normal error
    (b) Binary
        - Cosine basis + DPM random effect: probit
        - Cosine basis + DPM random effect: logistic
    (c) Poisson
        - Cosine basis + normal random effect
        - Cosine basis + DPM random effect
    (d) Negative Binomial
        - Cosine basis + normal random effect
        - Cosine basis + DPM random effect
    (e) All the above
        - Apply shape restriction

2. Functional Data Analysis

    (a) Function-on-function
        - Cosine basis + matrix normal random effect + matrix normal error

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[*]Prof. Taeryon Choi

- Cosine basis + matrix normal random effect + matrix DPM error
- Cosine basis + matrix DPM random effect + normal error
- Cosine basis + matrix DPM random effect + matrix DPM error