

Objective function

True objective function (Fig. 1)

Surrogate models

- Deterministic

- Probability (e.g., GP)

MF surrogates

- Adjustment
- Composition
- Input augmentation

SbO

BO

MFO

MF BO

Optimization algorithm

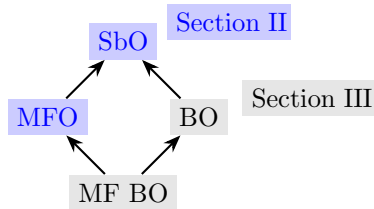
Local (derivative-based)

- Line search
- Trust region

Global (derivative-free)
(Maximizing an acquisition function)

- Improvement-based
- Optimistic
- Information-based

(a)



(b)