

## SUBMODULAR FUNCTIONS

## Why

1

## Definition

Let X a finite nonempty set. A function  $f: \mathcal{P}(X) \to \mathbf{R}$  is submodular if

$$f(S \cup T) + f(S \cap T) \le f(S) + f(T)$$

for all  $S, T \subset X$ .

<sup>&</sup>lt;sup>1</sup>Future editions will include. The discussion will likely be genetic, through combinatorial optimization.

