

Optimization with Estimation of Distribution Algorithms

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Programa de Actuaría

with Julia programming

Stochastic optimization

EDAs pseudocode

Example

Function minimization

Stochastic search

(Possible) Solution

Estimation of Distribution Algorithms

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Evolutionary Computation

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Algorithms for **global optimization** inspired by biological evolution.

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EDAs → Learning and simulation from probability distributions fitted with the “best individuals” in order to approximate an optimal solution.

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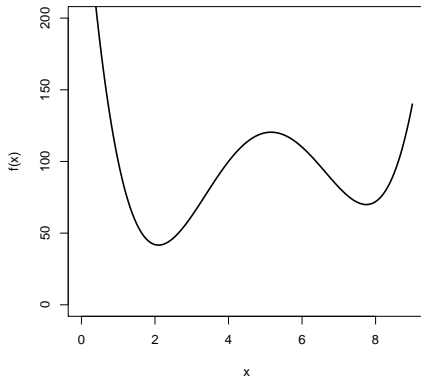
stop criteria : $\max(\text{generation}) - \min(\text{generation}) \leq 0.0001$

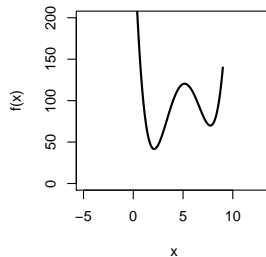
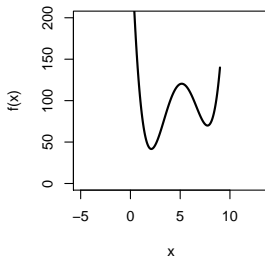
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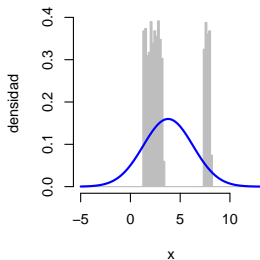
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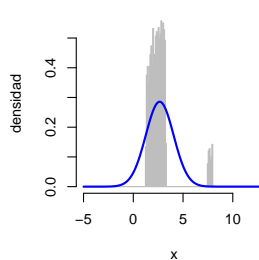


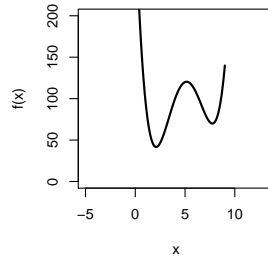
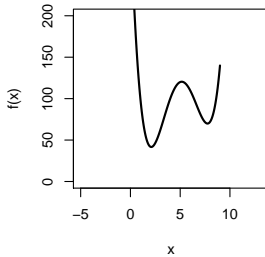


Generación 1

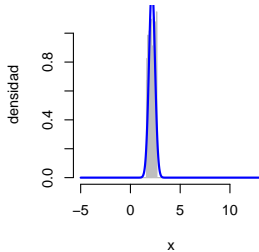


Generación 2

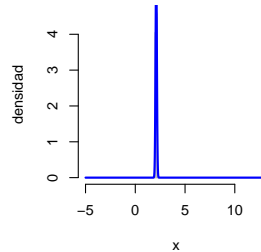


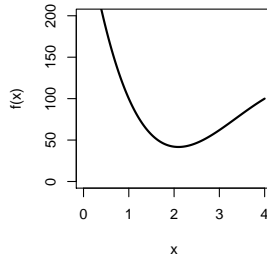
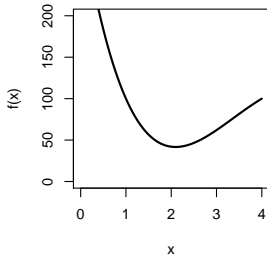


Generación 3

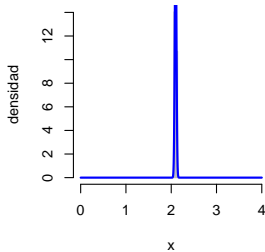


Generación 4

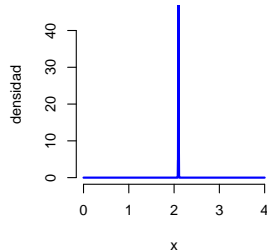


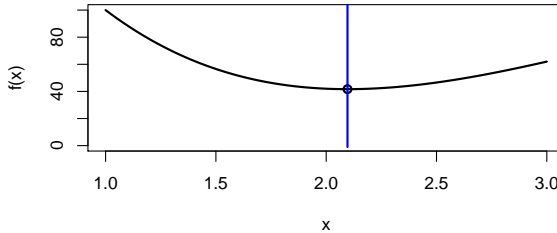


Generación 5

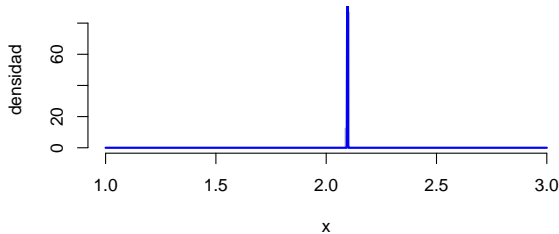


Generación 6





Generación 7 (última)



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