No Free Lunch Theorem vs. "Affordable Lunch!"

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Cognition-enabled Mobile Manipulation
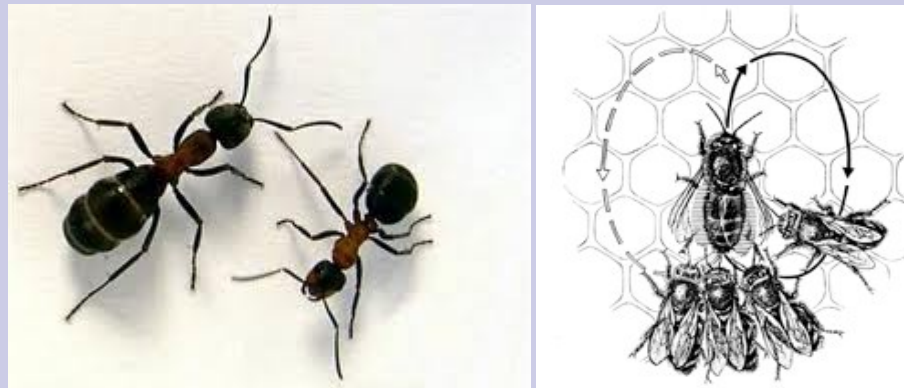**Technische Universitat Munchen, Nov 2010**

No Free Lunch

"any two algorithms are equivalent when their performance is averaged across all possible problems"

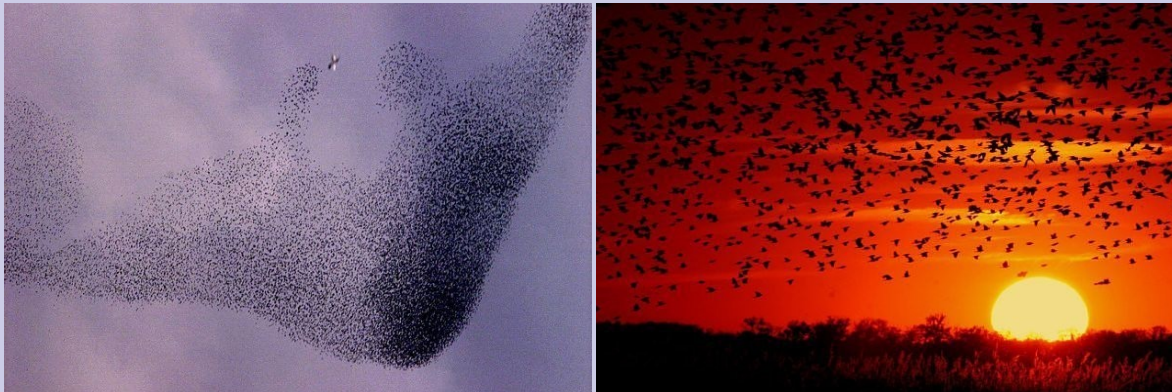Wolpert and Macready, 2005

Intelligence of ants / bees

- **Stochastic Diffusion Search (SDS)**
  - Resource allocation
  - Partial function evaluation

>> "Intelligence of Earth" !!

Intelligence of birds

- **Particle Swarm Optimisation (PSO)**
  - ☐ Well known optimiser in swarm intelligence field

>> "Intelligence of Heaven" !!

Conclusion

- **My research interest:**
  - ☐ Adding the "intelligence of earth" with the "intelligence of heaven" !!

- **Goal:**
  - ☐ Finding a more "affordable lunch"
  - ☐ Chef's lunch menu:
    - ☐ Optimisation
    - ☐ Music similarity
    - ☐ 2D to 3D Medical imaging

Thank you..

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