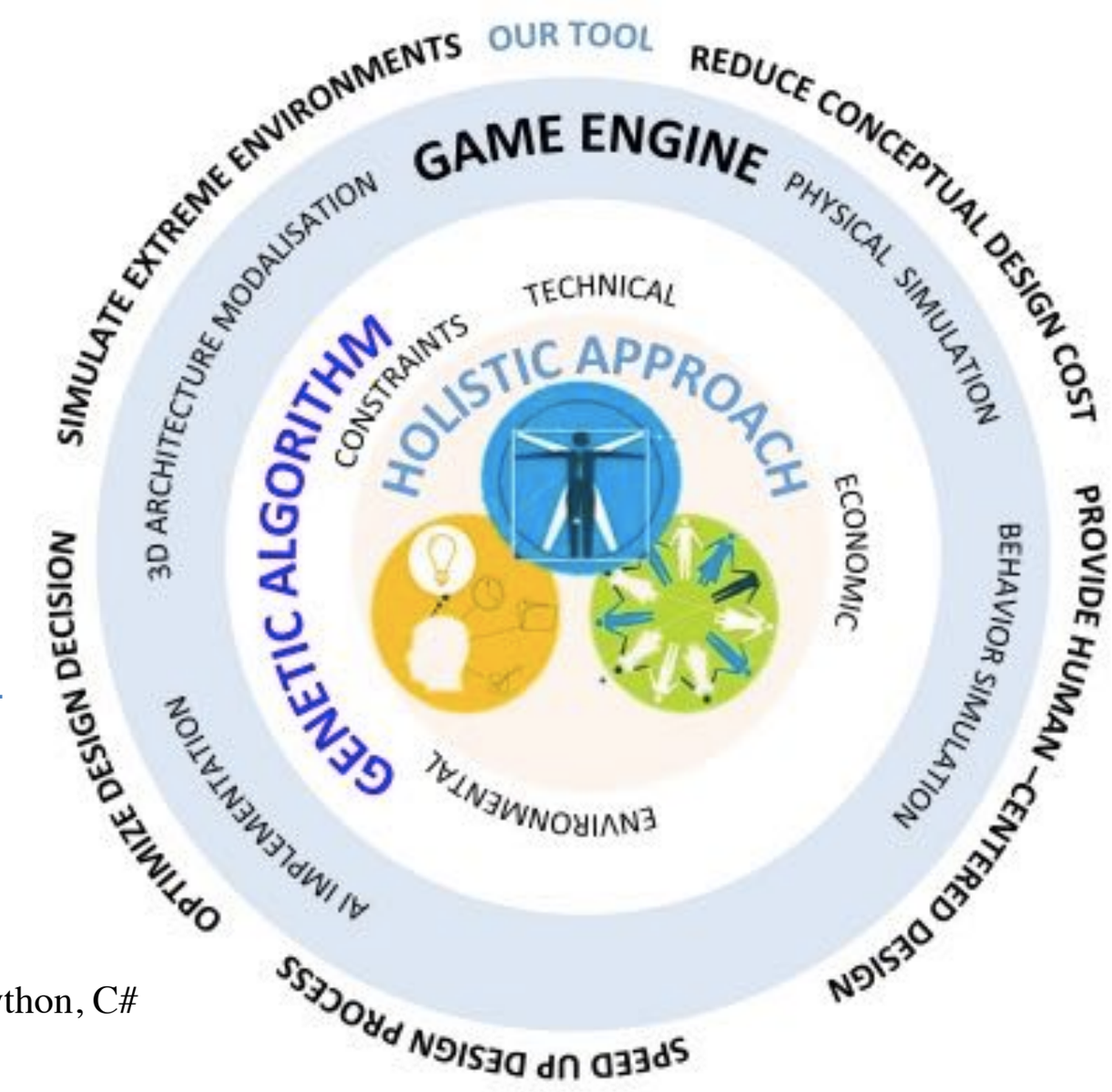
Tatiana Volkova



HUMAN PREDICTIVE SIMULATION
FOR EARTH AND SPACE EXPLORATION

Decision-support computer tool driven by Artificial Intelligence

processing, to find optimal solutions to non-intuitive architectural issues.

GAME ENGINE provides:

- 3D architectural modalisation
- Artificiel Intelligence implementation
- Character behavior simulation
- Physical simulation (gravity, mechanics)
- Compatible with high-level programming languages, such as C++, Python, C#

GENETIC ALGORITHM proceeds an iterative process, capable of modifying the modular architecture according to the Fitness Function

HOLISTIC APPROACH fuses the physical, cognitive and social aspects of work, offering a broader perspective on organizational effectiveness via design

- **PHYSICAL** Study of body size, capabilities-fit of the workplace to the individual
- **MENTAL** Work load, job tasks, software interface, the individual at work
- **SOCIAL, COLLABORATIVE** Formal and informal group work, transitions between modes-group spaces

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