



Bape | INDA | Utopia\_Dystopia | 2024

## Planetary Architecture | Game Set and Match conferences 5th Cycle | GSM5 | Fall 2026

### Theme: Planetary Architecture

- Planet-Conscious Architecture
- Outer Space Architecture
- Comprehensive World Building

### Synopsis

**Planetary Architecture** addresses architecture at the scale of Earth and beyond, redefining the discipline in response to planetary limits, cosmic expansion, and the urgent need for new world-making imaginaries. This international conference brings together architects, urbanists, scientists, artists, technologists, and philosophers to explore how design can operate simultaneously within ecological boundaries and extraterrestrial frontiers.

The conference foregrounds **planet-conscious architecture**, examining design practices that

respond to climate change, resource scarcity, biodiversity loss, and socio-ecological justice. Here, architecture is understood as an active agent within planetary systems—material, climatic, cultural, and political—demanding regenerative, adaptive, and ethical approaches to the built environment.

Extending beyond Earth, **outer space architecture** investigates habitats, infrastructures, and settlements in orbital, lunar, and planetary contexts. These discussions challenge conventional assumptions about gravity, atmosphere, time, and habitation, while offering critical insights that loop back to Earth-based design under extreme conditions.

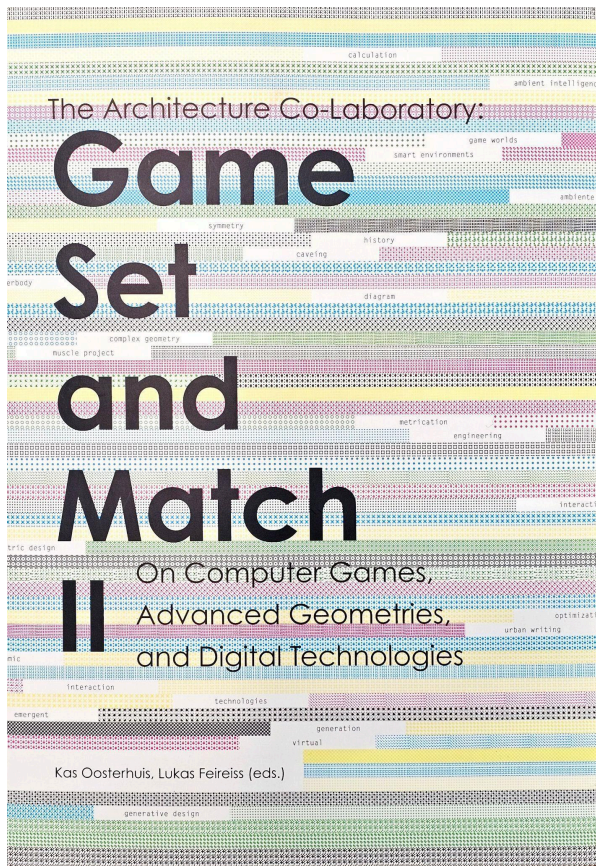
Finally, **comprehensive world building** frames architecture as a tool for constructing coherent spatial, social, and technological narratives across scales—from buildings and cities to planets and speculative futures. By integrating science, computation, art, and fiction, the conference positions architecture as a catalyst for envisioning resilient, inclusive, and multi-planetary ways of living.

Together, these strands propose planetary architecture as a transformative framework for designing worlds—real and imagined—at a

moment when humanity must rethink its place in the cosmos.

### Previous GameSetandMatch conferences

After his inauguration as professor of Digital Architecture, Professor Kasper Oosterhuis organized the international GameSetandMatch conference, with invited experts in the digital field from Switzerland, USA, France, and The Netherlands. The leading theme was to play the “game” of interactive architecture, by playing the real-time to “set” the parameters, and to “match” the desired conditions of the state-of-the-art of contemporary architecture.

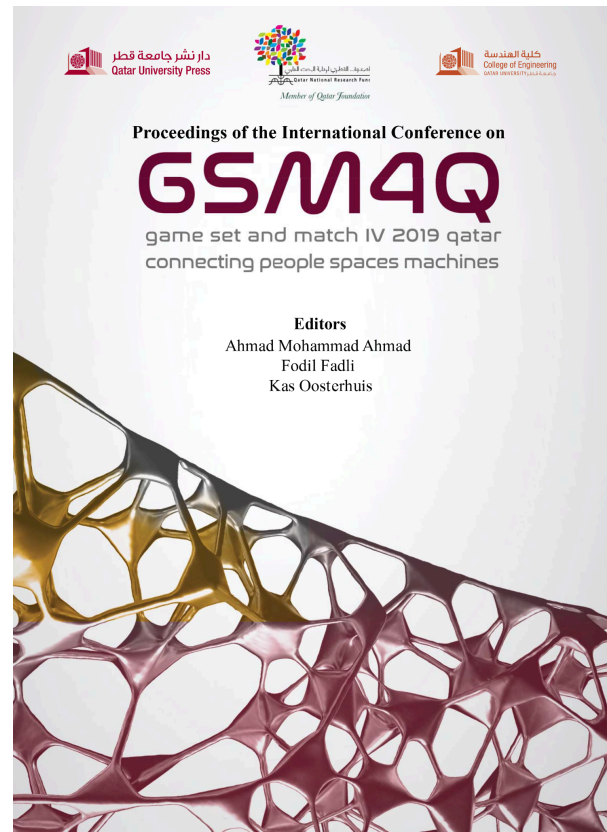


Cover GameSetandMatch II | 2006

In 2006 followed the second international GameStandMatch conference, a 3-day event themed “On computer games, advanced geometries, and digital technologies”, with renowned speakers from all over the world, and hundreds of high-quality scientific papers, addressing the state of mind of the international data-driven avant-garde.

In 2016 Oosterhuis organized the third GameSandMatch conference at the TU Delft on the occasion of his retirement from the faculty. Day one was dedicated to past and actual

achievements of his collaborators and PHD candidates, Day Two dedicated to Smart Environments,, curated by ass prof Nimish Bilorla, and day Three themed Robotics in Architecture, curated by ass prof Henriette Bier.



Cover GameSetandMatch IV Qatar | 2019

Then, in 2019, when Oosterhuis was invited to be full professor at Qatar University, he organized, the fourth GSM4Q conference, a two-day international conference, themed “Connecting People, Spaces, and Machines”, with accomplished speakers from France, Switzerland, Qatar, The Netherlands, USA, and Italy. The full program can be seen [here](#).

### GSM5 Riyadh

The theme of GSM5R is Planetary Architecture, which is specified in three categories 1] Planet-Conscious Architecture, 2] Outer Space Architecture, and 3] Worldbuilding. The invited speakers cover the themes from three different angles: 1] From the architectural practice, 2] From education, and 3] from the viewpoint of Planetary Architecture. The three-day GSM5R conference features one dedicated planetary day with world-renowned speakers, and two days with expert panels interwoven within the program of the SPACE LEAD 2026 conference.

## Timeline

16 April	Abstracts
26 April	Review abstracts
26 June	Full paper
16 July	Feedback papers
10 August	Accepted
September	Proceedings and stage design
October	Conference [in sync with Space Lead]

**Day One | Keynote speakers** [to be confirmed]

## Theme | World building

Conference moderator Dr. Aliaa Elabd

9.00 - 9.15

- Welcome speech Dr. Muhammad Anan

9.15 - 9.30

- Vision speech Her Royal Highness Princess Maha Al Saud

9.30 - 9.45

- Welcome speech Dr. Abdulrahman Alymani

9.45 - 10.00

- Introduction Planetary Architecture Prof. Kas Oosterhuis

10.00 - 10.45

- Tony Wiscombe | Al Qiddiyah Performing Arts Centre

10.45 - 11.30

- Anne Holtrop | MISK Art Center

11.30 - 11.45 Coffee Break

11.45 - 12.30

- Chris Bosse, LAVA | Expo 2030, Aquellum

12.30 - 13.00

- Panel keynote speakers  
Moderator Dr. Abdulrahman Alymani

13.00 - 14.00 Lunch break

14.00 - 14.45

- Zaher Abu Hijleh, Jacobs | Lead designer Mukaab

14.45 - 15.30

- Matias del Campo, TUW | AI reshapes architectural design, theory, and practice

15.30 - 16.15 Coffee Break

15.45 - 16.30

- Liam Young | Planet City

16.30 - 17.00

- Panel discussion  
Moderator Prof. Kas Oosterhuis

## Day Two | Panel discussion during first day of SPACE LEAD

### Panel 1 | Planet-conscious architecture

Duration 60 minutes

- Achim Menges, ICD | Computational design, robotic fabrication/construction, advanced material systems, sustainable building design
- Don Ritzen | SHIFT World competition
- Anne Holtrop | MISK Art Center

Moderator Dr. Aliaa Elabd

[Panellists show images of their work on big screen behind them while speaking]

## Day Three | Panel discussion during second day of SPACE LEAD

### Panel 2 | Outer space architecture

Duration 60 minutes

- Marcos Novak, UCSB | Algorithmic worldmaking and immersive environments
- Xavier de Kestelier, Hassell | 3D printed habitats on Moon and Mars
- Jeffrey Montes, Space Factory | MARSHA settlement on Mars

Moderator Dr. Muhammad Anan  
[Panellists show images of their work  
on big screen behind them while  
speaking]

### **Workshops**

- Day One: ETH Dr. Ana Anton | 3D printing of 12m high multiple helix tower
- Day Two during SPACE LEAD: TU Delft Dr. Arwin Hidding | Design-to-Robotic-Production of Underground Habitats on Mars
- Day Three during SPACE LEAD: Dr. Sandra Häuplik\_Meusburger | Space-craft Architecture

### **Sponsors** [to be confirmed]

- Saudi Space Agency
- MISK Art Institute
- ILMI Science Discovery and Innovation Center

### **Reserve speakers / panelists**

- Luke Fox, Foster Associates | King Salman International AIRPORT
- Philippe Morel, UCL | computational production, architecture, and politics
- Philip Yuan, Tongji University | computational design and robotic construction
- Ronald Snooks, RMIT | Swarm intelligence and multi-agent algorithms
- Gilles Retsin, UCL | Discrete robotic architecture
- Alana Goldweit, BIG | Oceanix City
- Roman and Elke Delugan-Meissl | NEOM The Line

### **Call for papers**

- Easychair Conference Support System
- Announcements via sister conferences, universities, social media

### **Publicity**

- Stage design [student engagement]
- Proceedings [designed by graphic designer]
- Video compilation of speaker's statements