

Videojogos VJ 2016

Covilhã, 24 e 25 de novembro

# JOT: A Modular Multi-purpose Minimalistic Massively Multiplayer Online Game Engine

INSTITUIÇÕES ASSOCIADAS



Gonçalo N. P. Amador  
Abel J. P. Gomes

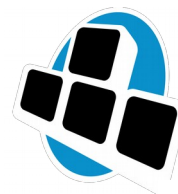
<https://g-amador.github.io/JOT/>

© 2014, it - instituto de telecomunicações. Todos os direitos reservados.



instituto de  
telecomunicações

# Why JOT? ... and why Java (instead of C++)?



**LWJGL**  
Lightweight Java Game Library



**libGDX**



ogre4j



JMonkeyEngine



commons  
[Math]

**JGroups**

INSTITUIÇÕES ASSOCIADAS



UNIVERSIDADE DA BEIRA INTERIOR  
Covilhã | Portugal

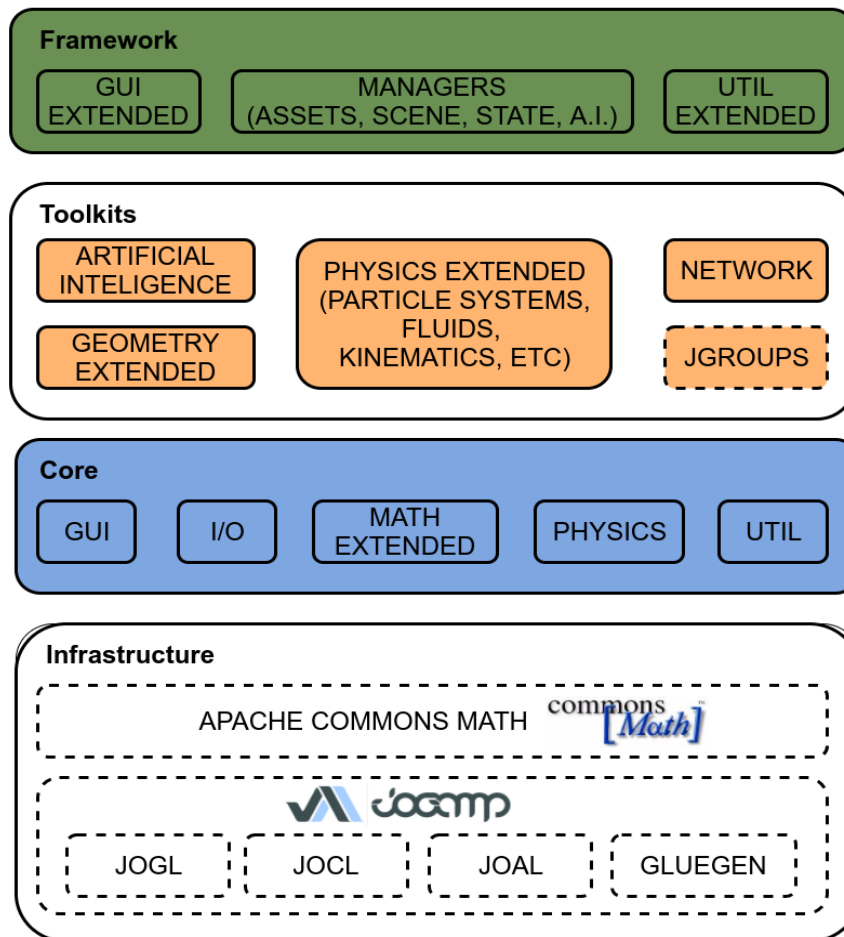
**Videojogos 2016**

**2 | Covilhã, 24 e 25 de novembro**



instituto de  
telecomunicações

# JOT architecture



INSTITUIÇÕES ASSOCIADAS



UNIVERSIDADE DA BEIRA INTERIOR  
Covilhã | Portugal

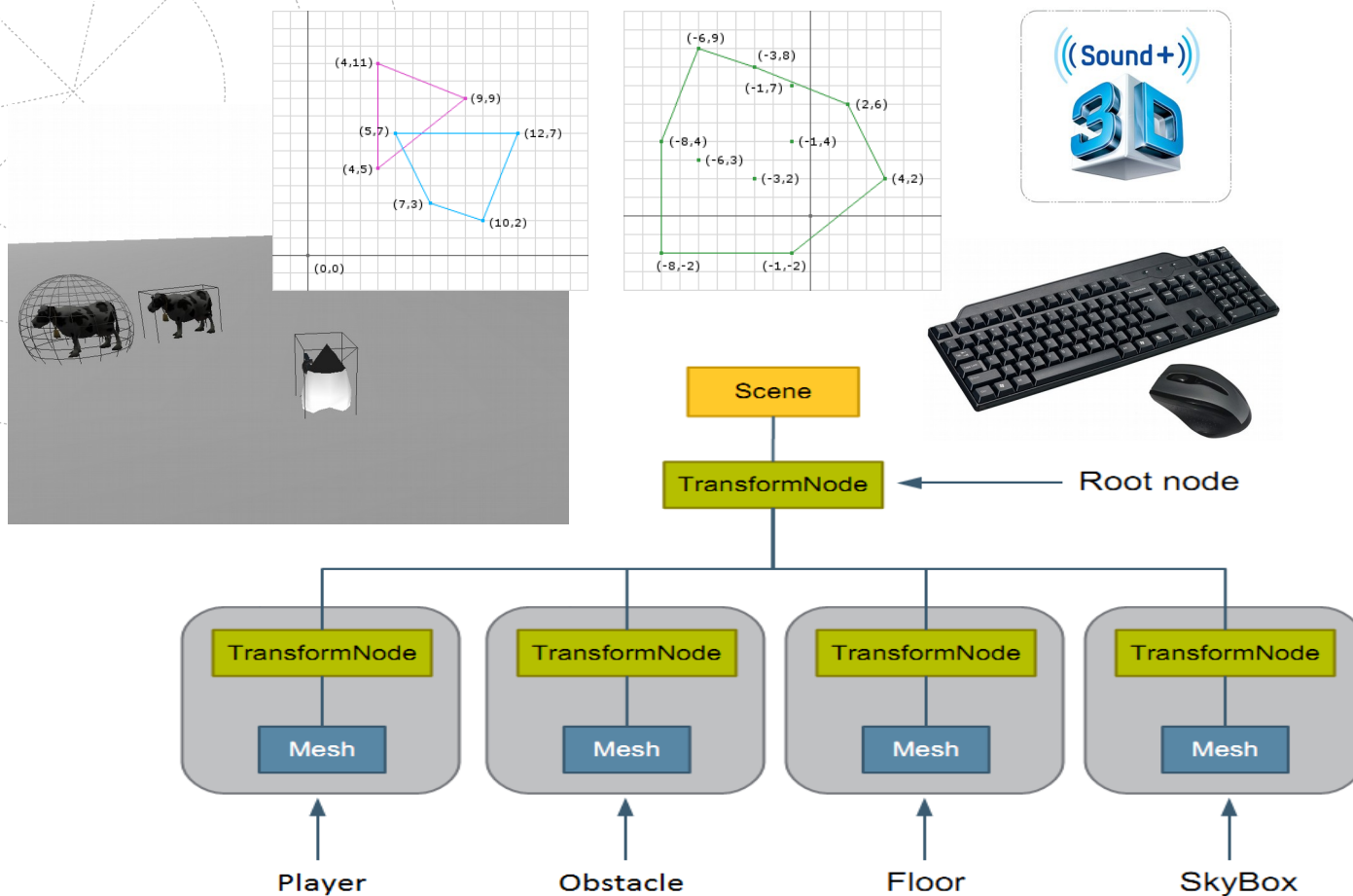
**Videojogos 2016**

**3 | Covilhã, 24 e 25 de novembro**



instituto de  
telecomunicações

# JOT Core



INSTITUIÇÕES ASSOCIADAS



UNIVERSIDADE DA BEIRA INTERIOR  
Covilhã | Portugal

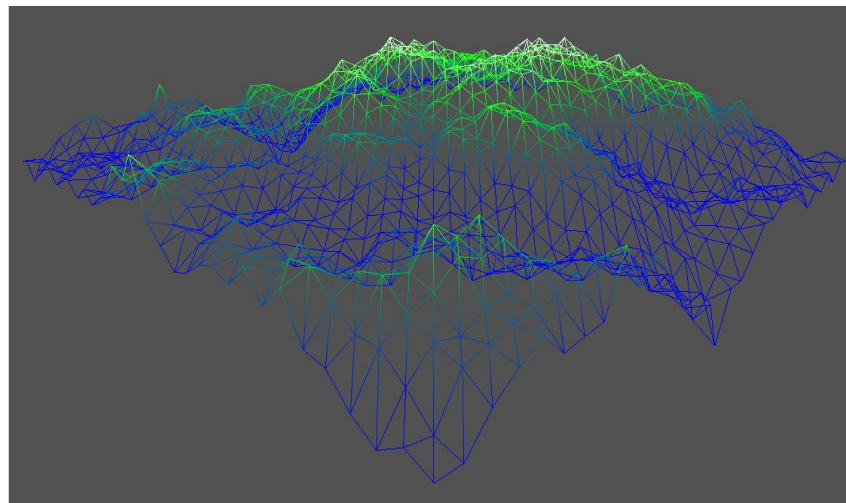
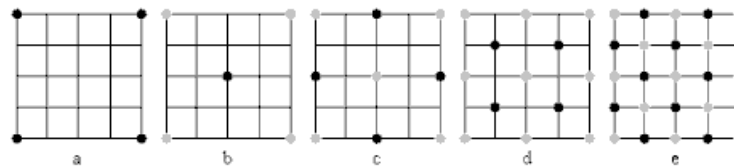
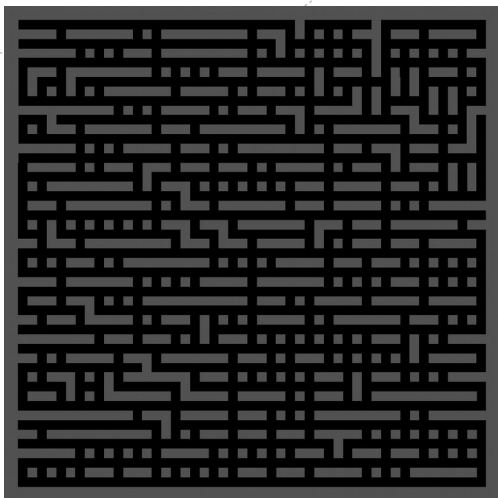
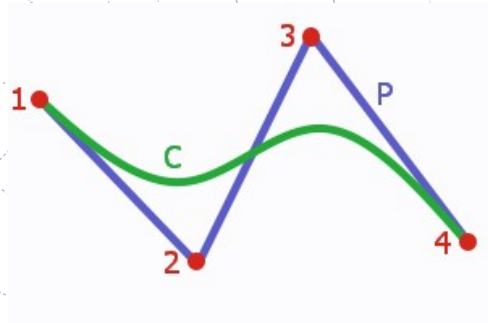
**Videojogos 2016**

**4 | Covilhã, 24 e 25 de novembro**



instituto de  
telecomunicações

# JOT Geometry Toolkit



INSTITUIÇÕES ASSOCIADAS



UNIVERSIDADE DA BEIRA INTERIOR  
Covilhã | Portugal

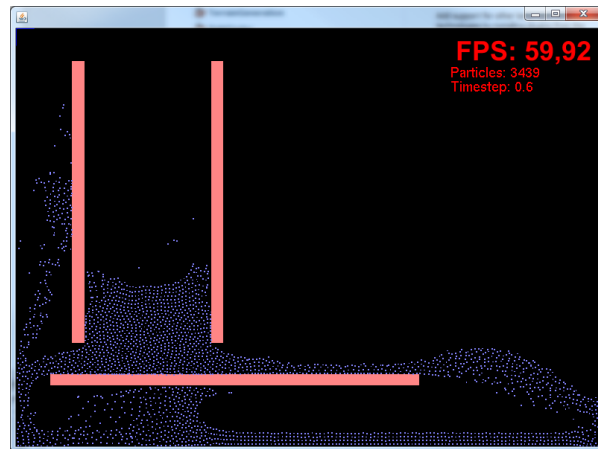
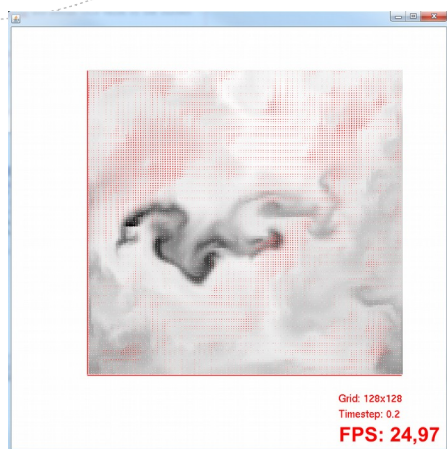
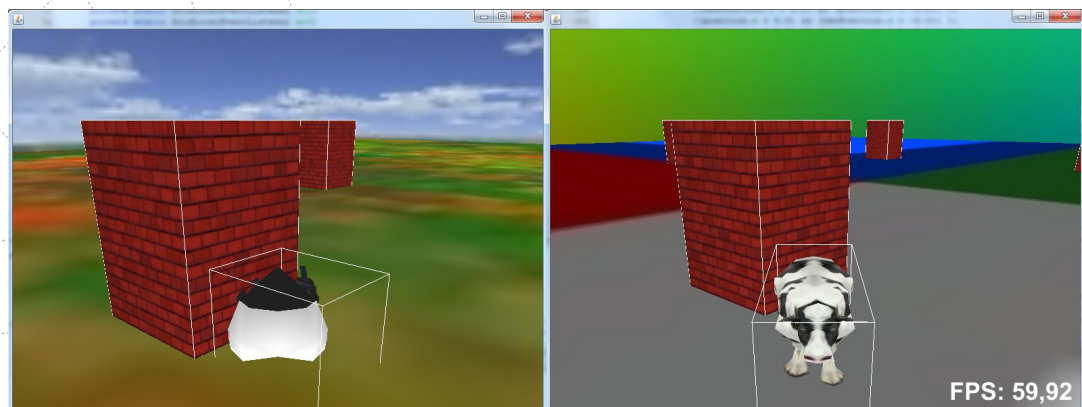
**Videojogos 2016**

**5 | Covilhã, 24 e 25 de novembro**



instituto de  
telecomunicações

# JOT Physics Toolkit



INSTITUIÇÕES ASSOCIADAS



UNIVERSIDADE DA BEIRA INTERIOR  
Covilhã | Portugal

**Videojogos 2016**

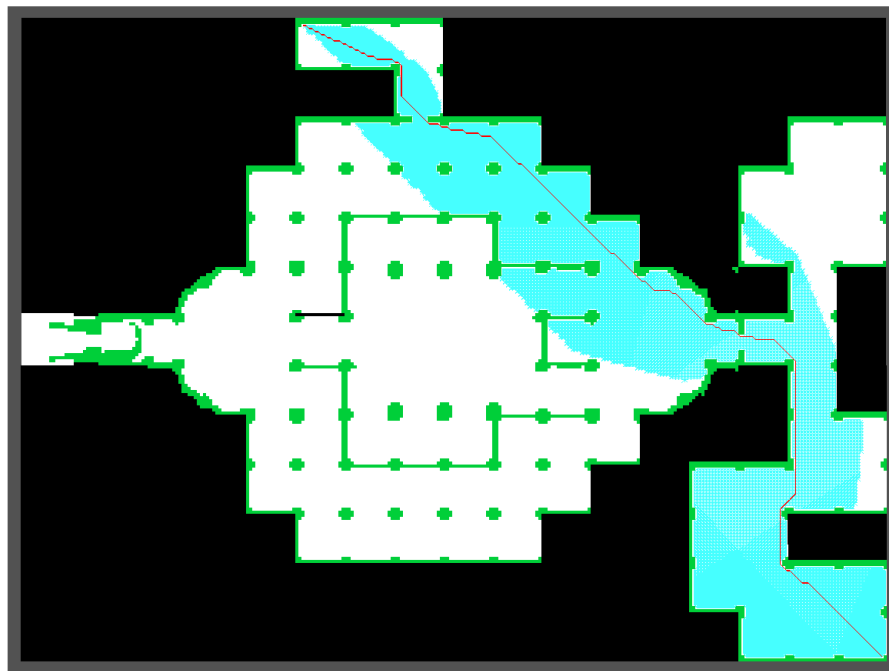
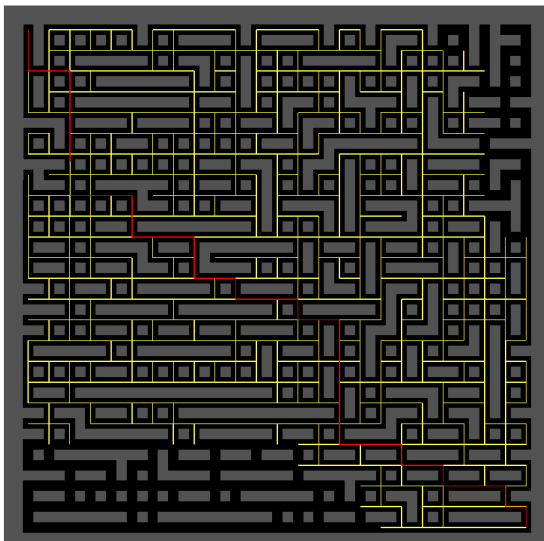
**6 | Covilhã, 24 e 25 de novembro**



instituto de  
telecomunicações



# JOT AI Toolkit



INSTITUIÇÕES ASSOCIADAS



UNIVERSIDADE DA BEIRA INTERIOR  
Covilhã | Portugal

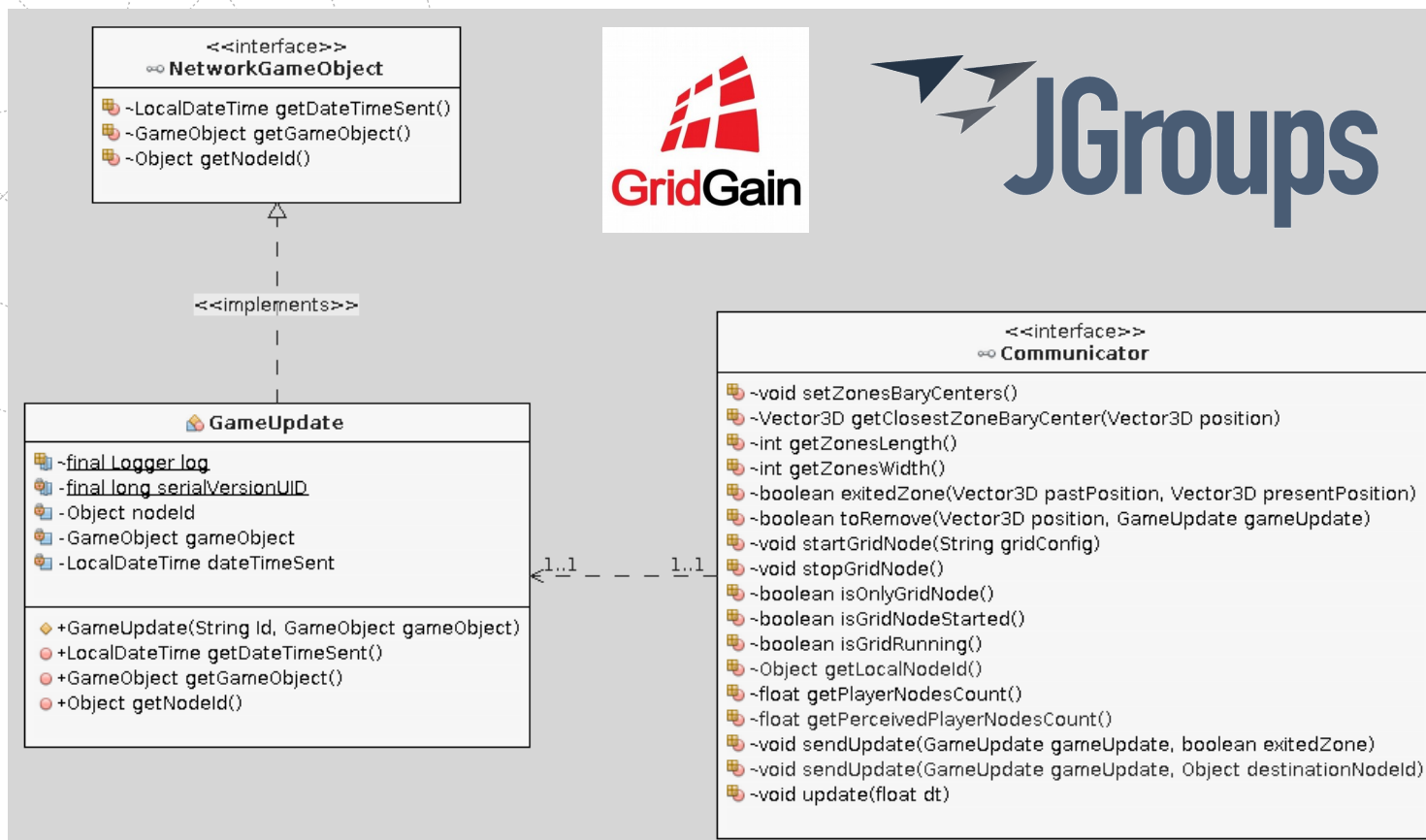
**Videojogos 2016**

**7 | Covilhã, 24 e 25 de novembro**



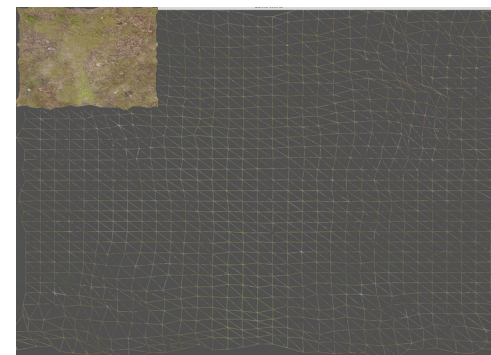
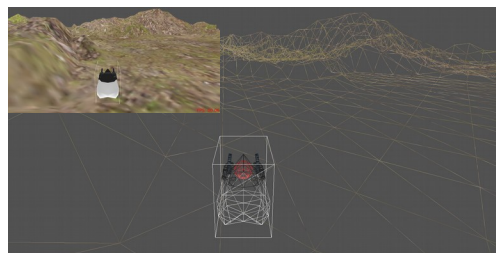
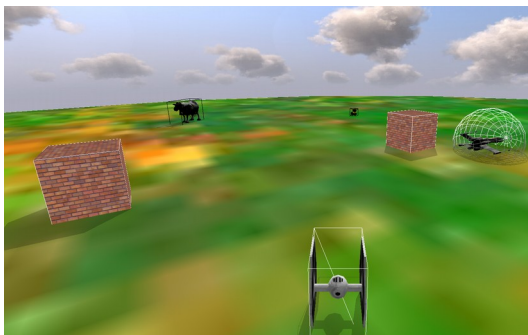
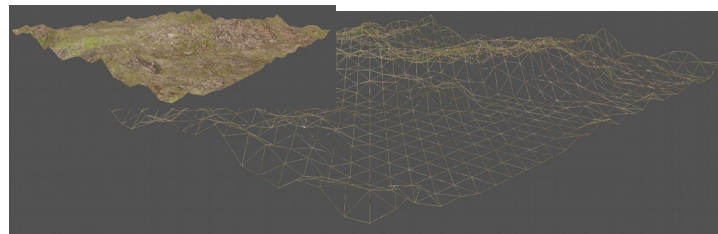
instituto de  
telecomunicações

# JOT Network Toolkit





# JOT Framework



INSTITUIÇÕES ASSOCIADAS



UNIVERSIDADE DA BEIRA INTERIOR  
Covilhã | Portugal

**Videojogos 2016**

**9 | Covilhã, 24 e 25 de novembro**



instituto de  
telecomunicações

# JOT Usage (so far) ...



INSTITUIÇÕES ASSOCIADAS



UNIVERSIDADE DA BEIRA INTERIOR  
Covilhã | Portugal

**Videojogos 2016**

**10 | Covilhã, 24 e 25 de novembro**



instituto de  
telecomunicações

## Future Work

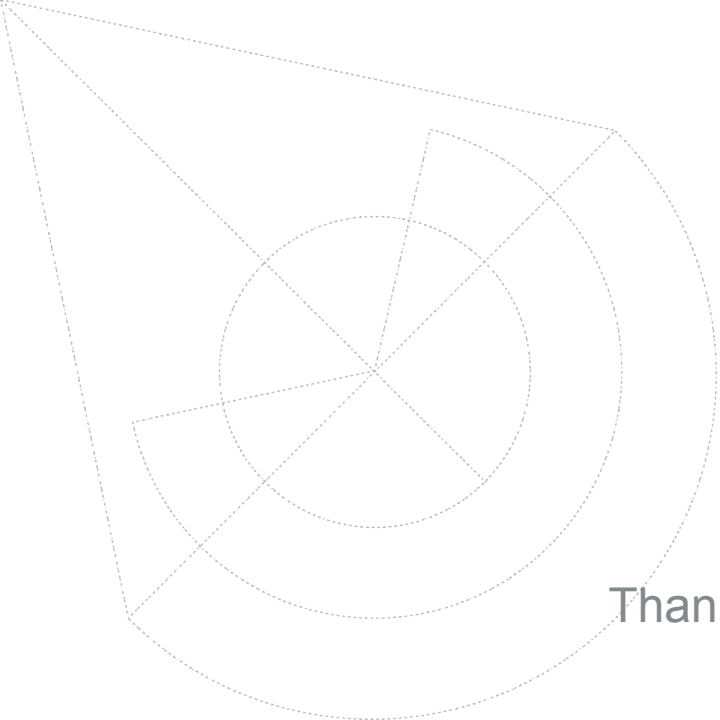
Extend the I/O module (OBJ, MD2, Collada skeleton animation).

Extend the Euler and particle fluids to 3D.

Replace JOT toolkits, e.g., JBullet physics engine.

Paralellize JOT, using OpenCL.

Allow games to be rendered directly on the browser.



Thank you for your time and attention!

Questions, suggestions, etc.?

INSTITUIÇÕES ASSOCIADAS



UNIVERSIDADE DA BEIRA INTERIOR  
Covilhã | Portugal

**Videojogos 2016**

**12 | Covilhã, 24 e 25 de novembro**



instituto de  
telecomunicações