LoLa is going to SWING!

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NPAPWS 2019
For a LoLa detailed technical overview

(NPAPWS 2013 @ MDW, Vienna)
LoLa system

Software

Hardware

Network
LoLa is: a good piece of s/w

- Parallel computing
- Code optimization
- New Audio and Video processing techniques
- ...

```java
// Example Java code snippet
```
Research and Education networks are not everywhere and not for everyone.

(Many) commercial providers are way back from the required service level

Many LANs are obsolete or misconfigured

... but we enabled features to make less hi-level demand on network

... and Smart “symmetric” GIG-City services are appearing!

30Mbps → 1Gbps → 10Gbps
LoLa what about 5G?
LoLa is: a good piece if h/w

You still need to put together a few pieces of technology:

- A good gaming PC
- Audio and video cards/gear
- Tune a bit the system

We already have a few “out of the box” suppliers for a ready “LoLa Box”

Some laptops are very promising!
We understand enough what it means to play/act/teach together at **TWO** distant locations
We know that users also dare the impossible

You cannot play across the ocean!
We have https://lola.conts.it
We have LoLa 2.0 ready to release

“We play in 3 sites” (still a lot to learn!)
We know that a good Laptop
1 piece of this
Maybe 1 piece of this for a good 1G card
Or maybe 1 piece of this for a 10G card
Make this!
But also this!
LoLa on laptops

- DELL Inspiron gaming 15 7000 late 2017 (i7 4core)
- MacBook pro late 2016
- DELL Insipron gaming 15 5587 late 2018 (i7 6core)

- A good external audio interface (possibly RME UFX series) with sampling down to 32
- The usual USB3 camera
- Maybe an external USB3/thunderbolt network card (but DELL 5587 has a good 1G internal card!)

- And you are done for quick easy (and portable) setups

- ...or even “home” setups

- NOT a replacement for “server class” setups but an easy entry level chance...

- And if you do not go for music... ASIO4ALL with do further magic: use internal laptop audio.
2500 years in a clip...
Already in the pot...

- Multiple cameras (multi-view points and PIP)
- Replay on the fly and digital zoom in/out (AOI)
- Portrait and landscape video mode
- Immersive sound – spatialization, ambisonic support
- Support for third-party plugins
- Sensors support
But can we make LoLa SWING?
What is it?

**SWING**
http://www.swing-project.eu
Synergic Work Incoming New Goals for Higher Education Music Institutions (ERASMUS+)

Project Duration: from September 1° 2018 until August 31° 2021

**Partners**

Consortium GARR - Italy

Conservatorio di Musica G. Tartini Trieste – Italy

Universitaet fuer Musik und Dartellende Kunst Wien – Austria

Akademia za Glasbo Univerza v Ljulijani - Slovenia

Association Europeenne des Conservatoires, Academies de Musique et Musikhochschulene – Belgium

... and other associates (Cons. Milan, Milan Polytechnic, RDAM, ARNES)
The goals

- to create a new professional profile: the technology friendly master level music teacher
- creation of a set of new learning prototype modules which use a mix of local and remote education
- development of a deeper transnational collaboration, which should compare, harmonize, fine tune and deploy joint activities resulting in a higher quality joint curricula.
- enhanced quality of the international mobility model for students and teachers, supplementing the physical mobility with a continuous virtual one
- enhancement of distance learning technology platform (LoLa), uniquely tailored to teachers and students needs
- a more homogeneous PhD level Higher Education path among different education institutions in different countries
How to SWING?

- A lot of real teaching sessions with many different instruments and situations, embedding LoLa into usual life of teachers and students
- **Collect feedback, discuss it, and try to turn it into new technology features.**
- **Then try it again, and see how it works!**
In just 3 weeks...

• We want to see from different viewpoints!
• A better support for voice while talking
• We want to see and annotate scores in the screen
• Eye contact also with teacher, not only with other musicians
• Bigger, or more video screens
• Sound dynamics must improve for some instruments
• Better guidance on microphone positioning
• Singers and different, they want more ambience sound!
• Singers need to act, to they need to move, and support for this is still too little
• How I would like also to touch YOUR instrument some times!
• ...

More on SWING

http://www.swing-project.eu

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Questions?

https://lola.conts.it

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