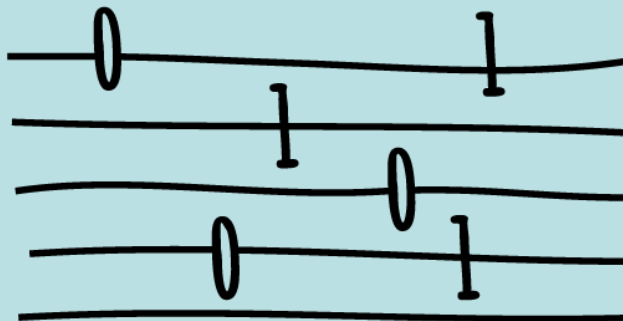


# SWING PROJECT





# An update after a "strange" year

## SWING

<http://www.swing-project.eu>

# Synergic Work Incoming New Goals for Higher Education Music Institutions

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

## Partners

- **GARR** Consortium GARR - Italy  
– (Project Coordinator and network technology support) [www.garr.it](http://www.garr.it)
- **CONTS** Conservatorio di Musica G. Tartini Trieste – Italy  
– (Technology development and teaching and training testbed) [www.conts.it](http://www.conts.it)
- **MDW** Universitaet fuer Musik und Dartellende Kunst Wien – Austria  
– (Technology development and teaching and training testbed) [www.mdw.ac.at](http://www.mdw.ac.at)
- **AG LJ** Akademija za glasbo Univerza v Ljubljani - Slovenia  
– ((Technology development and teaching and training testbed) [www.ag.uni-lj.si](http://www.ag.uni-lj.si)
- **AEC** Association Europeenne des Conservatoires, Academies de  
Musique et Musikhochschulene – Belgium  
– (Training and Disseminatio) [www.aec-music.eu](http://www.aec-music.eu)

## SWING

<http://www.swing-project.eu>

Synergic Work Incoming New Goals for Higher Education  
Music Institutions

### Other Associated Partners

- **INTERMUSIC Project – Conservatorio G. Verdi Milan – Italy**
- **Politecnico di Milano – Italy**
- **The Royal Danish Academy of Music Copenhagen – Denmark**
- **ARNES Academic and Research Network of Slovenia - Slovenia**



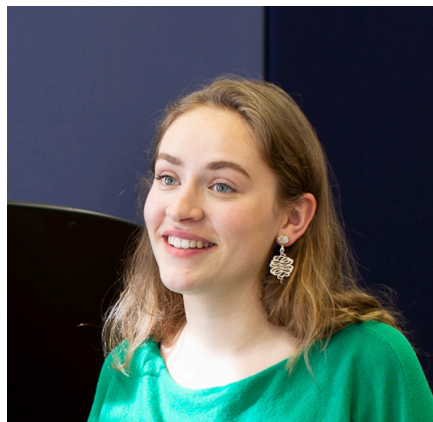
**SWING is a project to blend**

**Performing Art Teaching  
and  
Technology!**



## SWING is a project to blend

### Performing Art Teaching and Technology!



# The Project Official 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 e 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

# The Project Structure

- **01: Distance learning modules, Year 01: Solo instruments.**
- **02: Distance learning modules, Year 02: Chamber Music, small ensemble**
- **03: Distance learning modules, Year 03: Music for Instrumental Ensemble.**

O1, O2 and O3 have all two main goals:

- to define, to test and adjust the pedagogical contents in view of a possible future joint curricula among institutions
  - to be a testbed for LoLa and tools development, setting specific requirements for new implementations
- 
- **04: LoLa and technical tools development**
  - The new LoLa implementation will provide users with a set of tools and extensions specifically tailored for music education



## The background of the idea

Projects like SWING aim to make the teachers and students more "digitally aware" in the performing arts, enhance the technical tools they have and also help them to introduce technology into their daily life.

## A soft and smooth approach, but...

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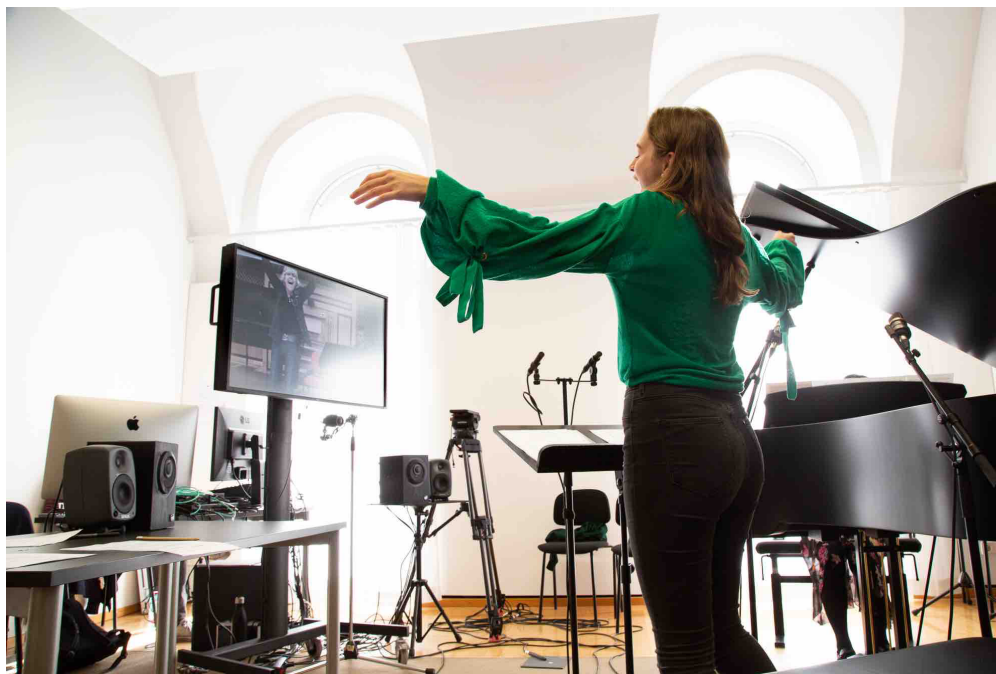
## A soft and smooth approach, but...





# Technology heavily jumped in!

Teachers and students had to become "digitally aware", learn technical tools and introduce technology into their daily life in a very short time, so the "unusual", became "the only chance"





# The Technical Background in SWING: LoLa

**“To perform together, from  
distant locations...  
as if distance has vanished  
in a click of a computer mouse”**



...a viola Masterclass with New World Symphony – Miami USA,  
at the GARR Conference 2005, in Pisa...

# What is the LoLa system?

## *Software*

```
fcomplex csqrt(fcomplex z)
{
    fcomplex c;
    float w;
    if ((z.r == 0.0) && (z.i == 0.0)) {
        c.r = 0.0;
        c.i = 0.0;
        return c;
    } else {
        w = sqrt((sqrt(z.r*z.r + z.i*z.i) + z.r) / 2.0);
        if (z.r >= 0.0) {
            c.r = w;
            c.i = z.i / (2.0 * w);
        } else {
            c.r = -w;
            c.i = z.i / (2.0 * w);
        }
    }
    return c;
}
```

<http://lola.conts.it>

## *Hardware*



## *Network*



# How were we “SWINGing”?

## Until the end of February 2020...

- A lot of real teaching sessions with many different ensembles 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!**



# An Overview of half of Year 2

- 12 teachers involved
- 30 active students
- About 30 other students following the lessons
- Violin-Piano, Piano-Duo, Piano-Trio, Saxophone band, Wind ensemble,...
- About 20 teaching sessions from November 2019 to February 2020
- Continuous feedback with technical development
- Many discussions and dissemination activities
- A long TODO list with ideas and new tests

## What changed from Year 1:

- jumping in the middle of “ordinary teaching” was easier!
- Teachers involved in year 1 made new teachers confident
- Changes in the way of teaching appeared more evident



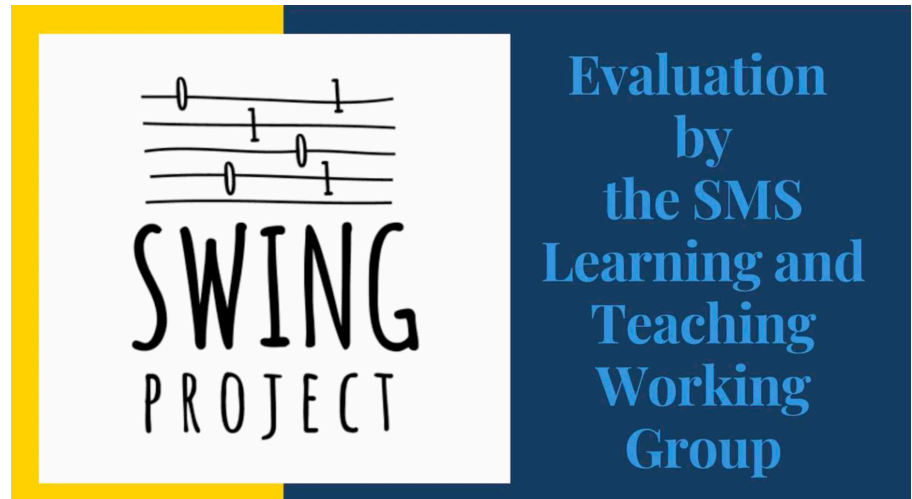
## After 1.5 year of swinging...

- 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
- The ability to receive single instruments separately is important
- Better guidance on microphone positioning
- Ensembles need multiple view points
- Teachers need to focus, sometimes, on one member of the ensemble
- There is the need to hear and see the «ambience» where the ensemble is
- ...

# Input from interviews of year 1

- Important information from teachers and students...
- Significant help to “position” LoLa and distance learning into the education scenario
- Some expected and some unexpected comments...

Listen also to this podcast!



[https://www.youtube.com/watch?v=B3BUxtqMsqc&feature=emb\\_logo](https://www.youtube.com/watch?v=B3BUxtqMsqc&feature=emb_logo)

## The second half of year 2

We (the SWING project team, but also all teachers and students which were involved) were ready to transfer our experience when the COVID-19 emergency stopped the usual teaching.

Without soliciting, the team started to receive requests for help and support from everywhere... in April we peaked to 200 requests in one day. Requests still come in on daily basis.

LoLa cannot be used (yet) to teach from home/to home, but most of acquired expertise can be applied to help how to use other tools.

The SWING project know how was the foundation also to evaluate and provide general guidance

# SWING as a support resource

Supporting in general distance musical learning requests was also introduced as a project activity, in agreement with Erasmus+ agency

The project audience suddenly was orders of magnitude bigger

The “requirements” and “inputs” from the teachers continued to come in, also if we were talking about much less performant tools.

Many more fresh ideas, also in the teaching methodology area.

We anyhow continued our mainstream technical studies and developments, using the additional contributions, waiting to be enabled again to field test them with the teachers and project involved into SWING.



# SWING project changes

Redesigning the Year 2 and Year 3 schedules, adapting to changing conditions

Likely extending project duration by 3 or 6 months to accomplish the intended activities

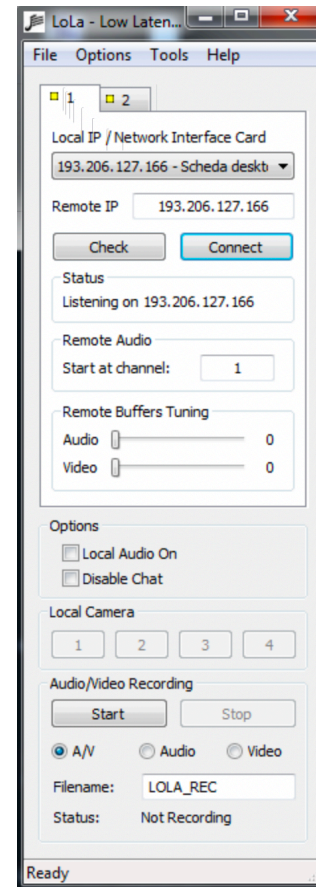
Transfer knowledge also to support enhancement of other less performant tools which can be used from home

Provide also more “how to” guides which can be used in general also for less performant tools.

... but keeping priority on foreseen original goals.

# LoLa v2.0 is ready!

- A renewed main interface
- Support for three hosts connection
- Support for Multicamera switch (up to 4 cameras)
- ...



## CONTACTS

<http://www.swing-project.eu>

[Ep-lola@garr.it](mailto:Ep-lola@garr.it)

More information also on

<https://lola.conts.it>

<http://www.garr.it>