

3D sound for the classical music of tomorrow

- **Siemens Arts Program is publishing cello works by Tchaikovsky and Gulda in 3D sound technology featuring solo cellist Jakob Spahn and the orchestra academy of the Bayerisches Staatsorchester**
- **Two immersive audio formats on one medium are revealing new ways forward for classical music in the digital age**
- **Blu-ray and CD will be released on 11 May**

In conjunction with the Orchestra Academy of the Bayerisches Staatsorchester and Jakob Spahn, solo cellist at the State Orchestra, the Siemens Arts Program has recorded works by Peter Tchaikovsky and Friedrich Gulda, producing them in several “immersive sound formats”. In intensive cooperation with the Siemens Arts Program, its artistic director Stephan Frucht and the Immersive Audio Network IAN, a completely new sound experience has been born which unites the traditional cello repertoire with a technically innovative audio method.

All three spatial dimensions are represented in the immersive 3D sound. The recipient is in the middle of the acoustic space and can experience the spatial quality of the sounds three-dimensionally. The “Cello Concertos” album in 3D sound quality will be out on the hänssler Classic label as a Blu-ray and CD on 11 May. The sound recordings were taken at the group headquarters of Siemens AG and in the Bruno-Walter hall of the Bavarian State Opera. The 3D immersive production is also being presented at the Siemens Headquarters in Munich on 28 April as part of the “Long Night of Music” event.

<https://www.muenchner.de/musiknacht/2018/location-detailansicht/siemens-zentrale/>

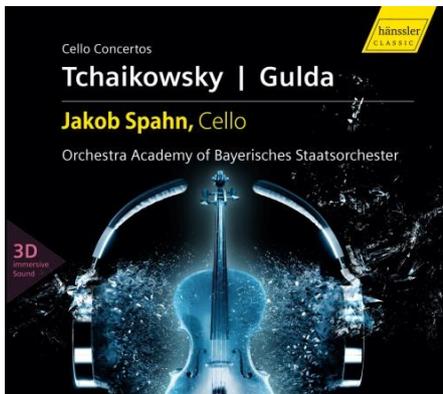
Stephan Frucht, artistic director of the Siemens Arts Program, explains: “The promotion of music enjoys a long tradition at Siemens. Unlike classic sponsorship, however, the Siemens Arts Program also initiates its own projects whereby new works are created by cooperating directly with artists. With our 3D production, we

worked with the Orchestra Academy to create specialties from the cello repertoire using unusual instrumentation and to work out a new sound concept.”

Annette Zühlke, director of the music department at the Bavarian State Opera, adds: “The Orchestra Academy of the Bayerisches Staatsorchester and Siemens AG enjoy a long-running partnership. It is against this background that this recording came about – our young scholarship students have been given their first chance to diligently record both chamber music and a concert repertoire using a technically new audio method, under exceptional production conditions.”

The following works have been recorded on the new CD and Blu-ray:

- Friedrich Gulda: concert for violoncello and wind ensemble
- Peter Tchaikovsky: rococo variations for violoncello and wind quartet (arrangement: David Stromberg)
- Peter Tchaikovsky: Andante cantabile – string quartet no. 1, op.11, no. 2



Tchaikowski | Gulda: Cello concertos
Orchestra Academy of the Bayerisches Staatsorchester
Jakob Spahn (cello)
Stephan Frucht (director)
Haenssler Classic, HC18016, © 2018

Siemens Real Estate has fitted out the auditorium of the new Siemens Headquarters in Munich with the latest audio playback technology able to reproduce this 3D sound. This audio system is based on a technical solution devised by the Fraunhofer Institute for Digital Media Technology (IDMT) for which the Siemens Arts Program, working with the Immersive Audio Network (IAN), created high-resolution immersive content in its own building.

3D/ immersive audio formats aren't new per se: however, they are only very rarely used in day-to-day music since they place high demands on hardware and software. This recording demonstrates how digitization can diversify classical music productions and enhance their quality.

About the 3D immersive audio method:

Unlike standard stereo or surround technologies, immersive audio formats can now also offer the chance to position individual sound objects at determined coordinates in the room or even to move them throughout the room. With the 3D immersive sound, the X and Y axes – familiar from the so-called surround sound – are joined by a third dimension: the Z level. One's hearing turns into a true 3D experience, similar to what you hear in nature: Hence, the technology used in the Siemens auditorium can enable the positioning of any number of sounds anywhere in the room. Each sound object has its own volume, as well as a stable room position which can be changed dynamically. It is for this reason that it is also referred to as "object-based listening". The listener is right in the middle of the musical goings-on. One experiences up close the spatial quality of the sounds; you can move freely between them and discover the sound space independently – as if you are sitting in the middle of the orchestra or in a seat of your choice in the concert hall.

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