# Odeon Webinar

## (Auditoria – performance places)

### For ODEON Auditorium & Combined - 2 sessions (2 hours each)

*First day*

1st Part (more than 1 hour)

- Latest updates for importing models from SketchUp and other CAD programs (ODEON 17, which is released before Christmas).
- Tour in ODEON tools & *Room setup* with emphasis on latest updates (upcoming ver. 17). Auditorium case with materials-sources assigned:
  - Enhancements in source-receiver editing.
  - Visualization of speaker cabinets.
  - Demonstration of tabulation tool.
  - Use of *Material Archive*.
  - Use of *Material Calculator*.
- Viewing results:
  - Single-point responses (reflectograms, hedgehogs, 3D reflection paths).
  - Multi-point responses (statistics, setting target curves).
  - Setting reflectors.
  - Grids (horizontal, vertical, groups, interpolation, scales).
- Quality of results:
  - Inspect the decay curves and reflection density.
  - Determine the number of rays.
  - Discuss uncertainty – JNDs.

2nd Part (less than 1 hour)

- Calculation Principles – Early and late reflections (PowerPoint presentation).
- How to assign Scattering in a model.
- How to represent Curtains and textiles.

*Second day*

1st hour

- Setting up and running auralisations (using Streaming convolution is assumed known).
  - Multi-source auralisations with the mixer.
  - Placement of musicians/Sound sources (refer to *J. Meyer, Acoustics and the performance of music, Springer*).
  - Using the *Source-group editor* (renovated version of the Macro editor).
- Room Acoustic Measurements (how to use a mic and an Omni-source for real-life measurements and how to import them in ODEON to compare with simulations).
  - Use of Target curves in multi-point response (new in ODEON 17).

2nd hour

- Loudspeaker installations
  - Sound reinforcement, using the *precedence* (HAAS) effect– church example.
  - PA system – train station.
  - Discuss how to deal with *artificial reverberation* (ODEON does not have a tool for that, therefore it is mostly about setting delays and gains of individual speakers manually).
- Application cases:
  *-Detecting flutter echoes and treatment.*
  *-Level of detail in model (audience seats vs audience box).*