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PARAMETRIC MODELING OF THE AUDIENCE PROFILE

Keywords: *audience, parametric modeling*

Design (computing) slope audience is a complex process that requires a large number of factors account, dimensions and regulations. Design of an audience is often necessary to calculate the slope and the execution on the basis of the penalty. Due to the large number of factors affecting the calculation of the audience is a labor-intensive task. The general rule is that the audience was calculated safety reasons slope as small as possible, however, to ensure unobstructed view of the competition area.

The multi-purpose halls, which are intended to be not only sports, used parts and moving objects facilitate the adjustment of the public to the needs of the show. Design and layout audience made, providing viewers unobstructed visibility and safety requires a large number of analyzes.

Author will try to prove that computer programs make it easier and faster to work both in the calculation of the slope of the proposed audience and the profile of rows. A detailed discussion of the methods of calculating the audience needs to clarify its basic dimensions and determine their numerical values or ranges in which they are or they can be used. Julian Brzuchowski divides them into data and assumed:

a) the dimensions of the data (solid), founded at the beginning calculation audience, remain unchanged during the execution of the project,

b) the expected dimensions (variables) allow you to adjust the audience into the arena during the calculation of the slope (by changing their values change, among others. position and inclination of the public in relation to the arena).

Due to the large number of dimensions of the data and the variables that affect the shape of the audience, very easy to make a mistake or make the mistaken assumption that the audience will feel the effects. For this reason, the proper adjustment of the parameters (numerical) data dimensions and variables is the basis of a well-designed auditorium. It is very helpful if you run a parametric model of the audience.

It is also a useful tool in the design of the audience moving, floating and variable pitch. Demonstrate the project two positions audience smoothly changing with the change of parameters (data and projected) can show the way and folding mechanism audience. Parametric modeling also allows the

execution of moving parts that could reflect the folding mechanisms audience. However, it seems that designers accustomed to drawing plane makes proposing as long the animation will not be used for the presentation of the project, as well as to show the principle of operation of its moving parts.

Currently designing a common ringside as close to the middle. However, the phenomenon of blocking the visibility of the audience close to the pitch slid by the viewer sitting next to was noted in ancient Greece. To counter should bend projected audience which also can be incorporated into a parametric model and changing audience with their help line F (focus) to obtain the required bend or "break" line rows. Define the position and curvature (fracture) line F in the model line parametric modeling helps the audience sector orders automatically to fit the size and shape of the field.

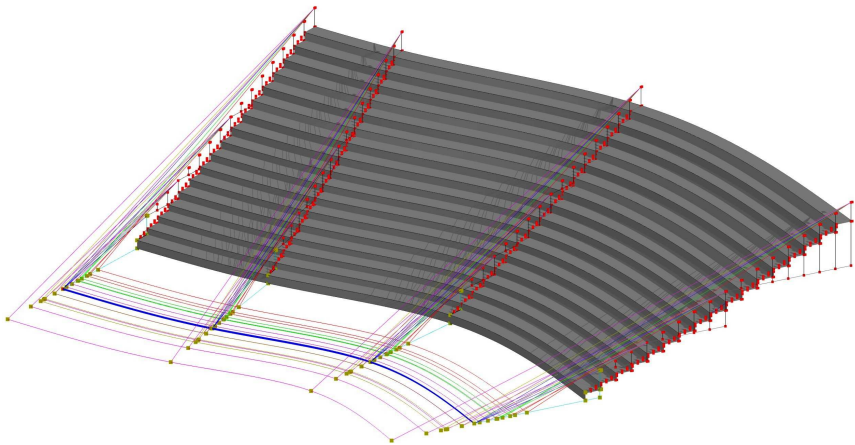


Fig. 1 Model showing the audience the unlimited possibilities of cross-sectional shape and throw the audience

In conclusion it should be emphasized the economic benefits of performing parametric models because:

- It significantly reduces the design process without loss of precision,
- Allow you to modify the assumptions (eg data parameters) in all stages of design without having to perform manual calculations and drawings (which is particularly helpful especially with such a complex activity, which is the calculation of visibility)
- Can be safeguards against the most common design errors, faulty signaling and blocking solutions to their reproduction,
- Enables solutions tailored to the needs of individual projects, while meeting the standards imposed by law,

- Once developed tools can be used repeatedly to design different types of objects, and the necessary parameter changes can be made without affecting the structure of the program,
- Their use may help to reduce the cost of the project - by shortening the time of its implementation,
- Allows optimum adaptation to different types of audience entertainment.

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