

# *Official Certificate*

**Avirup Mandal**

**Indian Institute of Technology Bombay, India**

attended the

**12th International Conference on Information  
Visualization Theory and Applications  
(IVAPP 2021)**

held online from February 8 to 10, 2021

and presented a paper entitled

*Non-linear Monte Carlo Ray Tracing for Visualizing  
Warped Spacetime*

as Conference Speaker.

On behalf of the Organizing Committee,

A handwritten signature in black ink, appearing to read "Jose Braz".

Jose Braz  
VISIGRAPP Conference Co-chair