

**ATE  
HEFAT  
2021**



Heat Transfer Fluid Mechanics  
and Thermodynamics  
Applied Thermal Engineering  
**VIRTUAL CONFERENCE**  
26-28 July 2021

**CERTIFICATE**  
OF  
**ORAL PRESENTATION**

AWARDED TO

**Ivan Belyaev**

**FOR PRESENTING**

**EXPERIMENTAL STUDY OF LIQUID METAL MIXED CONVECTION IN VERTICAL  
PIPES AND DUCTS**

Ivan Belyaev (JIHT RAS, Russia), Denis Chernysh (MPEI JIHT), Nikita Rasuvanov, Nikita Luchinkin,  
Petr Sardov and Yaroslav Listratov

AT

**THE 15<sup>th</sup> INTERNATIONAL CONFERENCE ON HEAT TRANSFER, FLUID  
MECHANICS AND THERMODYNAMICS (HEFAT) AND EDITORIAL  
BOARD OF APPLIED THERMAL ENGINEERING (ATE)**

A handwritten signature in black ink, appearing to read "J.P. Meyer", is positioned above the printed name.

Prof. J.P. Meyer  
ATE-HEFAT 2021 | Conference Chair  
Head of Mechanical and Aeronautical Engineering,  
Faculty of Engineering, Built Environment & IT  
University of Pretoria

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# CERTIFICATE

OF

**SESSION CHAIR**

AWARDED TO

**Ivan Belyaev**

**FOR CHAIRING**

**COMPUTATIONAL FLUID DYNAMICS 3**

AT

**THE 15<sup>th</sup> INTERNATIONAL CONFERENCE ON HEAT TRANSFER, FLUID  
MECHANICS AND THERMODYNAMICS (HEFAT) AND EDITORIAL  
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# CERTIFICATE

OF SERVICE

ON THE

Technical Programming Committee

AWARDED TO

Ivan Belyaev

FOR

**THE 15<sup>th</sup> INTERNATIONAL CONFERENCE  
ON HEAT TRANSFER, FLUID  
MECHANICS AND THERMODYNAMICS  
(HEFAT) AND EDITORIAL BOARD OF  
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