II ed. XII Conference Young Scientists in Power Engineering
Faculty of Mechanical and Power Engineering
Wrocław University of Science and Technology
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ABSTRACT TITLE

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Abstract

The abstract of the paper may not exceed two pages. Please prepare an abstract without dividing it into chapters. You should start by providing the title of the abstract in English ("Title in English"), personal data of the speaker (Name, surname and affiliation).

The abstract of the paper should be prepared using this template or Microsoft Word version. The *.tex and *.sty, or *.docx version together with the pictures (in * .jpg or * .png format, each max. 1 MB) should be sent to the address **kme@pwr.edu.pl** by **01/11/2020**.

This template provides exemplary structures (equations, tables, figures, enumerations, literature). Please fill them in with your content. Unnecessary, structures can be suspended by putting % at the beginning of the line, or deleted.

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Example of **enumeration** is shown below (instead of **itemize** you can use **enumerate** to number items in your list).
- top: 2,0 cm,
- bottom: 2,0 cm
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- right: 2,0 cm

An example of a text excerpt with **equations** is shown below.

The equations of motion of viscous and incompressible fluid have the form (equations 1 and 2 - equation reference has form \ref{eom}, the equation definition has additional \label{eom}, which creates basis of reference) [2, 1]:

$$\frac{\partial \mathbf{u}}{\partial t} + (\mathbf{u} \cdot \nabla)\mathbf{u} = -\frac{1}{\rho}\nabla p + \nu \Delta \mathbf{u}, \tag{1}$$

$$\nabla \cdot \mathbf{u} = 0, \tag{2}$$

gdzie $\mathbf{u} = (u, v, w)$ is the velocity vector, ρ – fluid density, p – pressure and ν – kinematic viscosity coefficient.

The following sections show examples of placing **charts, pictures and tables.** Single graph or photo (Fig.1 - the figure reference is created the same way the equation reference is created):
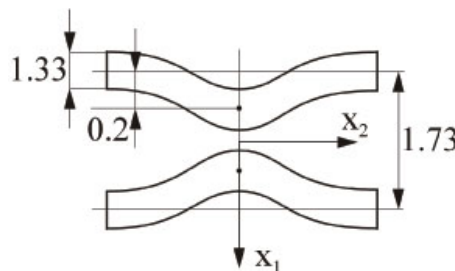
*F*ig. 1: One image with caption

For better readability when needed it is allowed to use \newpage

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Two charts or photos next to each other with two independent captions (Fig. 2 and Fig. 3):
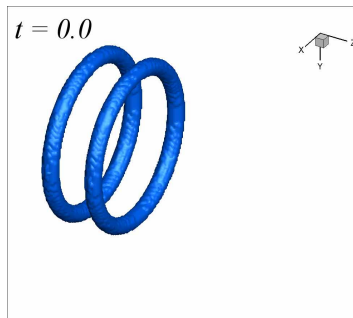

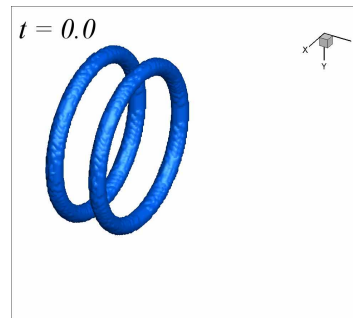*F*ig. 2: Two pictures side by side with two captions (left)

*F*ig. 3: Two pictures side by side with two captions (right)

Example of table is shown below (Tab. 1 and Tab. 2).

Table 1: Acceleration achieved for Jacobi's method.

Number of nodes	tsl	tx	nc	frm nc
32x32x32	4.05	6.61	6.94	12.32
64x64x64	17.71	26.32	31.26	52.82
128x128x128	24.78	29.95	43.67	58.89

Additional example of table is shown below.

Table 2: Cryogenic coolers

Cryooler	Capacity range
Turbo-Brayton	18 - 250 kW at 120 K
Stirling	2 - 8 kW at 120 K
Gifford-McMahon	14 - 600 W at 80 K
2-stage Pulse Tube	up to 1.2 kW at 120 K
Single-stage Pulse Tube	12 - 90 W at 80 K
Miniature Pulse Tube	3 - 10 W at 80 K
Joule-Thomson	100 W at 120 K
Cryogenic cascade	up to few kW at 120 K

References

[1] Aref H. *Motion of three vortices*, Phys. Fluids **22** (3), 393-400, 1997

[2] Kochin N. E., Kibel I. A., Roze N. V. *Theoretical hydromechanics*, Interscience Publishers, New York 1965

[3] Synge J. L. *On the motion of three vortices*, Can. J. Math., **1**, 257-270, 1949