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Conclusion

The presented papers summarize the results of numerical flow simulations, solved in the last time period in VÚTS in Liberec. Topics are focused, first of all, on the area of air jet weaving and they are spreading in other textile technologies and generally in operating systems and equipment in other areas of technology after incoming requests of solutions. Two principal aims are observed first of all:

1. Verifications of a new hypothesis of solutions – the method of numerical flow simulation enables to confirm or not the hypothesis, defined for a solution of absolutely new problems.

2. The determination of a wrong function of actual equipment – the method of numerical flow simulation defines a relevant flow field (pressure, temperature, velocity, ...) and its evaluation usually implicates not only the reason of the wrong operation, but usually also the way of remedy.

The solution using the method of numerical flow simulation is relative simpler in general, comparing with repeated manufacturing of experimental setups, realization and evaluation of experiments, etc. From the several solved variants, it can be expertly chosen the probably suitable or successful of them and only that is verified by experiment. The experimental verification is necessary in general because the best model remains the simplified approach to the complicated reality, only.

Many received results were published on several international conferences and congresses if it should be

possible regarding the business secrets, company-specific know-how, etc. The references are noted in individual papers. Furthermore, several overview publications were elaborated, too, for instance [1], [2], [3], [4], [5], [6].

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References

- [1] K. Adamek, "Applied fluid mechanics in the textile machinery", thesis of professor lecture, Fac. of machinery TU in Liberec, 2006 (in Czech).
- [2] K. Adamek, "Flow simulations in textile technologies", Transfer VZLÚ No. 20, Vol. 8, VZLÚ Praha, 2013, ISSN 1801-9315 (in Czech).
- [3] K. Adamek, "Numerical modelling of flow in systems of production machines and equipment", ARTI Report No. Z-75. VZLÚ Praha, 2001.
- [4] K. Adamek, "Presentation of activities in the area of numerical flow simulations", VÚTS Liberec, 2014.
- [5] K. Adamek, "Präsentation der Ergebnisse im Bereich der numerischen Strömungs-simulationen", VÚTS Liberec, 2014.
- [6] K. Adamek, "Presentation of results in numerical flow simulations", VÚTS Liberec, 2014 (in Czech).