

List of Publications of Dr. Sergio Lavagnoli

JOURNAL PUBLICATIONS

1. **Lavagnoli S.**, De Maesschalck C., Paniagua G., 2014, "Analysis of the Heat Transfer Driving Parameters in Tight Rotor Blade Tip Clearances", Submitted to **Journal of Heat Transfer**.
2. **Lavagnoli S.**, De Maesschalck C., Paniagua G., 2015, "Uncertainty Analysis of Adiabatic Wall Temperature Measurements in Turbine Experiments", **Applied Thermal Engineering**, Vol. 82, pp. 170-181.
3. Andreoli, V., **Lavagnoli S.**, Paniagua, G., Fernandez Villace, V., 2014, "Robust Model of a Transient Wind Tunnel for Off-Design Aerothermal Testing of Turbomachinery", Submitted to **Measurement**.
4. De Maesschalck C., **Lavagnoli S.**, Paniagua G., 2014, "Blade Tip Carving Effects on the Aero-Thermal Performance of a Transonic Turbine", **Journal of Turbomachinery**, Vol. 137, Issue 2.
5. De Maesschalck C., **Lavagnoli S.**, Paniagua G., Vinha, N., 2014, "Aerothermodynamics of Tight Rotor Tip Clearance Flows in High-Speed Unshrouded Turbines", **Applied Thermal Engineering**, Vol. 65, Issues 1-2, pp. 343-351.
6. De Maesschalck C., **Lavagnoli S.**, Paniagua G., 2013, "Blade Tip Shape Optimization for Enhanced Turbine Aerothermal Performance", **Journal of Turbomachinery**, Vol. 136, Issue 4.
7. Paniagua G., **Lavagnoli S.**, Verstraete T., Mahmoudi W., Benamara T., 2013, "Aerodesign of a Transonic Contra-Rotating Turbine to Drive the LOX and LH2 Turbopumps in an Expander Cycle", **International Journal of Numerical Methods for Heat and Fluid Flow**, Vol. 23, Issue 4.
8. **Lavagnoli S.**, Paniagua G., De Maesschalck C., Yasa T., 2013, "Analysis of the Unsteady Overtip Casing Heat Transfer in a High Speed Turbine", **Journal of Turbomachinery**, Vol. 135, Issue 3.
9. Sousa J., **Lavagnoli S.**, Paniagua G., Villafane L., 2012, "Three Dimensional Inverse Heat Flux Evaluation Based on Infrared Thermography", **Quantitative InfraRed Thermography Journal**, Vol. 9, Issue 2, pp. 177-191.
10. **Lavagnoli S.**, Paniagua G., Tulkens M., Steiner A., 2012, "High Fidelity Rotor Gap Measurements in a Short-Duration Turbine Rig", **Mechanical Systems and Signal Processing**, Vol. 27, pp. 590-603.
11. **Lavagnoli S.**, Yasa T., Paniagua G., Castillon L., Duni S., 2012, "Aerodynamic Analysis of an Innovative Low Pressure Vane Placed in an s-Shape Duct", **Journal of Turbomachinery**, Vol. 134, Issue 1.
12. Yasa T., **Lavagnoli S.**, Paniagua G., 2011, "Impact of a Multi-Splitter Vane Configuration on the Losses in a 1.5 Turbine Stage", **Journal of Power and Energy - Part A**, Vol. 225, Issue 7, pp 964-974.
13. Solano J.P., Pinilla V., Paniagua G., **Lavagnoli S.**, Yasa T., 2011, "Aero-thermal Investigation of a Multi-Splitter Axial Turbine", **International Journal of Heat and Fluid Flow**, Vol. 32, Issue 5, pp 1036-1046.

CONFERENCE PAPERS

1. De Maesschalck C., **Lavagnoli S.**, Paniagua G., Verstraete, T., Olive, R., Picot, P., 2015, "Heterogeneous Optimization Strategies for Carved and Squealer-Like Turbine Blade Tips", Submitted to the **ASME TURBO EXPO 2015**, ASME Paper GT2015-42983, Montreal, Canada, June 2015.
2. Cuadrado, D., **Lavagnoli S.**, Paniagua G., 2015, "Methodology to Correct the Magnetic Field Effect on Thin Film Measurements", Submitted to the **ASME TURBO EXPO 2015**, ASME Paper GT2015-42715, Montreal, Canada, June 2015.
3. Saavedra, J., **Lavagnoli, S.**, Paniagua, G., 2015, "Implications of Boundary Layer Establishment on Convective Heat Transfer Experiments", Submitted to the **AIAA Science and Technology Forum and Exposition**, Florida, USA, January 2015.
4. **Lavagnoli S.**, De Maesschalck C., Paniagua G., 2014, "Uncertainty Analysis of Adiabatic Wall Temperature Measurements in Turbine Experiments", Proceedings of the **22th Biannual Symposium on Measuring Techniques in Turbomachinery**, Lyon, France, September 2014.
5. **Lavagnoli S.**, De Maesschalck C., Paniagua G., 2014, "Analysis of the Heat Transfer Driving Parameters in Tight Rotor Blade Tip Clearances", Proceedings of the **ASME TURBO EXPO 2014**, ASME Paper GT2014-25291, Dusseldorf, Germany, June 2014.
6. **Lavagnoli, S.**, Andreoli, V., Paniagua, G., Fernandez Villace, V., 2014, "High-Fidelity Model of a Transient Turbine Facility for Off-Design Aerothermal Testing", Proceedings of the **AIAA Science and Technology Forum and Exposition**, AIAA paper AIAA-2014-1309, National Harbor, USA, January 2014.
7. De Maesschalck C., **Lavagnoli S.**, Paniagua G., 2013, "Blade Tip Carving Effects on the Aero-Thermal Performance of a Transonic Turbine", Proceedings of the **ASME Turbine Blade Tip Symposium 2013**, ASME paper TBTS2013-2028, Hamburg, Germany, September 2013.
8. De Maesschalck C., **Lavagnoli S.**, Paniagua G., 2013, "Blade Tip Shape Optimization for Enhanced Turbine Aerothermal Performance", Proceedings of the **ASME TURBO EXPO 2013**, ASME Paper GT2013-94754, San Antonio, USA, June 2013.
9. Sousa J., **Lavagnoli S.**, Paniagua G., Villafane L., 2012, "Inverse Heat Conduction Problem for Estimation of Surface Heat Flux With Conjugate Gradient Methods Based on Infrared Measurements", Proceedings of the **12th Quantitative Infrared Thermography Conference**, Naples, Italy, June 2012.
10. **Lavagnoli S.**, Paniagua G., De Maesschalck C., Yasa T., 2012, "Analysis of the Unsteady Overtip Casing Heat Transfer in a High-Speed Turbine", Proceedings of the **ASME Turbo Expo 2012**, ASME paper GT2012-69492, Copenhagen, Denmark, June 2012.
11. Yasa T., **Lavagnoli S.**, Paniagua G., "Impact of A Multi-Splitter Vane Configuration on the Performance of a Low Pressure Stator", **9th European Turbomachinery Conference**, Istanbul, Turkey, March 2011.
12. Bonfanti G., Yasa T, **Lavagnoli S.**, Paniagua G., "Development of Oil Dot Visualization to Measure the Shear Stress", Proceedings of the **20th Biannual Symposium on Measuring Techniques in Turbomachinery**, Milan, Italy, September 2010.
13. Pinilla V., Solano J.P., Paniagua G., **Lavagnoli S.**, Yasa T., "Experimental Heat Transfer Investigation In A Multi-Splitter LP Vane Architecture", Proceedings of the **ASME Turbo Expo 2010**, ASME paper GT2010-22694, Glasgow, Scotland, June 2010.
14. **Lavagnoli S.**, Yasa T., Paniagua P., Duni S., Castillon L., "Aerodynamic Analysis of An Innovative Low Pressure Vane Placed In A S-Shape Duct", Proceedings of the **ASME Turbo Expo 2010**, ASME paper GT2010-22546, Glasgow, Scotland, June 2010.