

**PRESENTATION and WORKSHOP on
PIV APPLICATIONS in
TURBOMACHINERY
PIVNET-2 European Thematic Network
Task 3.4**

organized by:

*Prof. Jakob Woisetschläger
and
Prof. Franz Heitmeir*

*Institut für Thermische Turbomaschinen und
Maschinendynamik, Technische Universität Graz*

OVERVIEW

Improving turbomachines requires detailed studies of flow phenomena in rotating turbomachines. The overall objective of experimental and theoretical work is the modelling and optimisation of the turbulent, high-speed, three-dimensional flows inside turbomachines. For this research the institute at TU Graz is equipped with a 3MW compressor station providing air continuously to a transonic turbine test rig. In this test rig three-component PIV is used for flow investigations as well as two-component Laser-Doppler-Anemometry, Laser Vibrometry and various types of pressure and temperature probes.

TARGET GROUP

This workshop is targeted principally at researchers and R&D engineers in the field of turbomachinery. Other interested people are cordially welcome.

LABORATORY DEMONSTRATIONS

A Laboratory demonstration is planned to give participants the opportunity to obtain an impression on the application of PIV in transonic turbomachinery flows.

CALL for PRESENTATIONS

Contributions (presentations) by other researchers active in the field of PIV and PIV related techniques in turbomachinery are invited. Interested people are requested to get in contact with the organizing secretariat **by Tuesday 20th December 2005**. Full

length papers are not required; however electronic copies of the presentation and/or appropriate papers on the presented subjects should be made available for a post-workshop CD proceedings.

EXPRESSIONS of INTEREST

People interested in attending the Presentation and Workshop are kindly requested to return the Expression of Interest Form **by Tuesday 20th December 2005**. Due to space limitations, the total number of participants is restricted to 40.

REGISTRATION FEE

Registration is FREE for PIVNET2 partners. Non-PIVNET2 partners will contribute to the organising costs by paying a fee of 50.00 €, which includes lunch, coffee breaks and proceedings.

PROGRAM

- Paper presentations
 - Laboratory demonstration of 3C-PIV in a transonic turbine flow
 - Round table discussion
- Detailed and updated information on the Program, Registration, etc. will be provided by email.

ACCOMODATIONS

A number of rooms are available close to the institute's location (within walking distance). Among them are:
Hotel Mercure Graz Messe (<http://www.mercure.at/>)
Hotel zur Stadthalle (<http://www.stadthalle.co.at/>)
restricted parking but good pricing)

Tourismus information and any hotel booking is also available via <http://www.graztourismus.at/>

A full map of the city of Graz can be downloaded from <http://www.tugraz.at/dietug/graz/grazmap.html>. In this map the institute is located in the southeast of the center (Inffeldgasse) and highlighted in red. Inffeldgasse is easily accessible via public transportation.

**PRESENTATION and WORKSHOP on
PIV APPLICATIONS in TURBOMACHINERY
PIVNET-2 European Thematic Network – Task 3.4
Graz, Austria, 1 – 2 March 2006**

EXPRESSION of INTEREST FORM

Please mail or fax this form to:

PIVNET2 Organising secretariat, c/o J. Woisetschläger
Institut für Thermische Turbomaschinen und
Maschinendynamik, Technische Universität Graz
Inffeldgasse 25A, A-8010 Graz, Austria
Fax: +43 316 873 7239
e-mail: jakob.woisetschlaeger@tugraz.at

Title _____
First Name _____
Last Name _____
Company _____
Division _____
Address1 _____
Address2 _____
Post code/city _____ / _____
Country _____
Telephone _____
Fax _____
e-mail _____

Please mark appropriate entries:

- I am interest in the Presentation and Workshop
 I am a PIVNET-2 partner.
 I am not a PIVNET-2 partner.
 I would like to present a paper.

Paper title

Date _____ Signature _____

GENERAL

PivNet-2 is a Thematic Network funded by EC. PivNet-2 is composed of 38 partners originating from industry, research organizations and universities. Many of them participate in European research programs like GROWTH etc. Industrial partners originate from both the PIV users and PIV manufacturers sides. They come from 14 different European countries and among the 38, 13 are industrials and 8 are large research organizations. 6 partners are small enterprises. The main fields already concerned in the network are aeronautics, turbomachinery, and the naval field.

Beside the primary PivNet consortium, another 50 teams participate in an interest group (ERCOFTAC SIG 32) and this is also taken into account in the net structure.

PivNet-2 is a follow up of the successful PivNet thematic network (1997 – 2002). PivNet-2 started in May 2002 and will run for 4 years. PivNet-2 is coordinated by Dr. Andreas Schroeder, DLR, Bunsenstrasse 10, D-37073 Göttingen, Germany, e-mail: andreas.schroeder@dlr.de



Graz



Graz at 1600



Cultural Capital of Europe 2003

VENUE

The Presentation and Workshop will be hosted by the Institut für Thermische Turbomaschinen und Maschinendynamik, Technische Universität Graz which is located in the city of Graz, Austria. Graz can be reached by car, train or airplane

FURTHER INFORMATION

Information on the Institute
<http://ttm.tugraz.at>

Information on Technische Universität Graz :
<http://www.tugraz.at>

Information on the City of Graz:
<http://www.graztourismus.at/>
<http://de.wikipedia.org/wiki/Graz> or
<http://en.wikipedia.org/wiki/Graz>

Airport information::
<http://www.flughafen-graz.at/>

Trains in Austria:
<http://www.oebb.at/>

Information on PIVNET-2
<http://pivnet.dlr.de/>

Organising Secretariat

Mrs. Bianca Puntigam
Prof. Jakob Woisetschläger

*Institut für Thermische Turbomaschinen und
Maschinendynamik, Technische Universität Graz
Inffeldgasse 25A, A-8010 Graz, Austria*

*phone: +43 316 873 7226
Fax: +43 316 872 7239*

e-mail: jakob.woisetschlaeger@tugraz.at



First Announcement

PRESENTATION and WORKSHOP on

**PIV APPLICATIONS in
TURBOMACHINERY**

**PIVNET-2
European Thematic Network
Task 3.4**

1 –2 March 2006

**Institut für Thermische Turbomaschinen
und Maschinendynamik
Technische Universität Graz,
Graz, Austria**

