

General Assembly meeting

June 14th, 2022

Important:

- please keep your microphone on mute. Unmute only when you want to speak
- the meeting is being recorded, and it might be made available to GFPS participants

GFPS Participant meeting

Tuesday, June 14th 2022

Per Johansen

Victor Sverbilov

In attendance:

at IFK

Katharina Schmitz **RWTH Aachen**, Germany **Olivier Reinertz RWTH Aachen**, Germany **Rudolf Scheidl** JKU Linz, Austria Liselott Ericson Flumes, Linkoping University, Sweden Peter Pelz TU Darmstadt, Germany TU Dresden, Germany Juergen Weber Tatiana Minav Tampere University, Finland Laship, UFSC, Brazil Victor De Negri Johannes Schmitz Linde Hydraulics, Germany Emma Frosina University of Sannio, Italy Adolfo Senatore University of Naples, Italy University of Bath, UK Andrew Plummer Andrzej Sobczyk Cracow University of Technology, Poland Zhejiang University, China Bing Xu Luca Romagnuolo University of Naples, Italy Massimo Rundo Tech Univ of Turin, Italy Maximilian Kuhr TU Darmstadt, Germany

Aalborg University, Denmark

Samara University, Russia

Online

Agenda

1. GFPS in short:

website, participants, structure

- 2. New board of directors 2022-2026
- 3. GFPS in conferences and GFPS awards
- 5. 2022 GPFS PhD Symposium
- 6. GFPS financial status
- 4. International Journal of Fluid Power
- 7. Open discussion Other topics

GFPS in short

Global Fluid Power Society (GFPS) is a worldwide community of institutes for networking in the area of fluid power and fluid techniques. GFPS's general objectives are to:

- Bring people of the fluid power community "together"
- Provide information about fluid power developments and publications
- Strengthen the standing of fluid power and fluid techniques in industry and academia
- Promote fluid power and fluid techniques as scientific/technical discipline

Promote collaborative projects and provide information about expertise in the field of fluid power technology

Promote the exchange of students and researchers among fluid power institutions

GFPS publishes the International Journal of Fluid Power and provides literature information on Fluid Power. An important aspect of GFPS is technology transfer via Workshops, Conferences, and Forums.

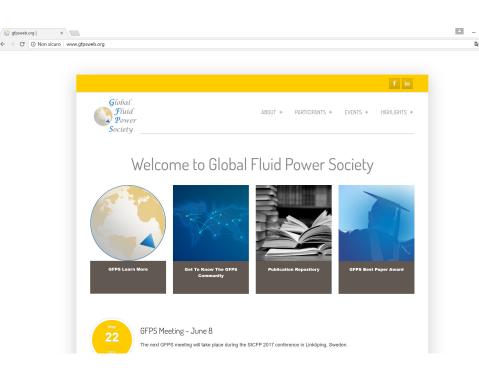
The Global Fluid Power Society operates as a Non-Profit Corporation, registered in the United States (State of Indiana).

GFPS in short

The website is the main communication channel of GFPS (<u>www.gfpsweb.org</u>).

It includes:

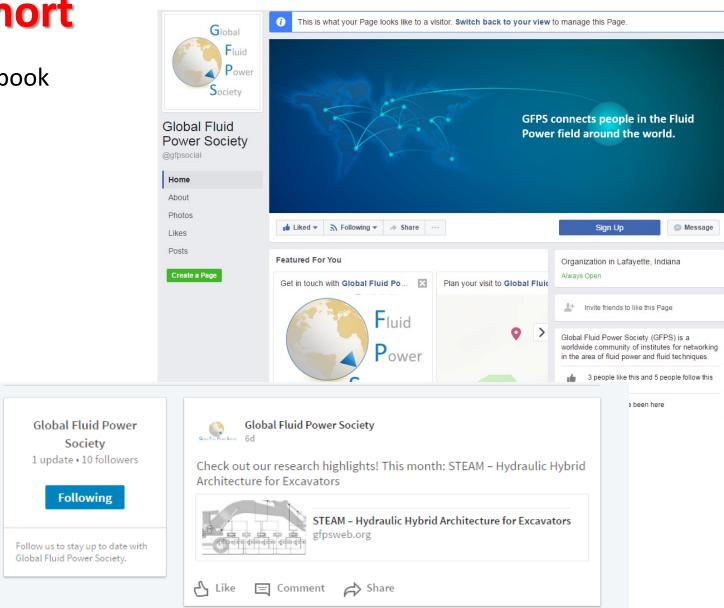
- a repository of fluid power papers, including past Bath/PTMC conferences,
- research highlights / job posting
- calendar of fluid power events
- GFPS best paper award recipients
- GFPS participants list and statute



GFPS in short

Like us on Facebook

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GFPS Statute

Board of directors (BoB)

- 5 directors, four elected by the General Assembly (one vote per institution), 4 years term
- The BoB should include members from the 3 continents: America, Europe, Asia
- The BoB should include no more than two non-academic members
- The BoB includes the Chairman, the Secretary, and the Editor in Chief of the International Journal of Fluid Power (IJFP). The Editor in Chief of the IJFP is one Director (not elected)

Assembly

Open to all participants. Votes on all proposals made by the Board of Directors. Yearly General Assembly, at an international conference. Place of meeting decided by the BoB. Proposed voting system: one vote per institutions (not small institution) Online voting (email) was set for the 2022 vote of the BoB

Advisory Board

The advisory board is used to provide advise to the Directors. Every participant (not small institute) can nominate a person for the advisory board

Participants

small institutions / regular institutions fluid power associations and companies

Previous Board of Directors (BoB)

(March 2018 – February 2022) From February 2018 vote (vote from 17 institutions)



Andrew Plummer (current Chair) University of Bath, UK



Andrea Vacca (Secretary and Treasurer)

International Journal of Fluid Power Chair Purdue University, USA



Jürgen Weber Technische Universität Dresden, Germany



Rudolf Scheidl J. Kepler University of Linz, Austria



Huayong Yang Zhejiang University, China

New BoB elected in May 2022 Term: 2022 - 2026 Solicitation sent to all GFPS participants in Jan 2022 NOMINATION REQUESTED in Feb 2022 EMAIL VOTE: April-May 2022

Current Participants

Academic Institutions

Academic participant

Company - Association

Organizations

ASME – FPST VDMA - FFF

#	Institution	Country	contact person
1	Maha Fluid Power	USA	Andrea Vacca
2	IFAS - Aachen	Germany	Hubertus Murrenhoff
3	Laboratoire Ampere - INSA Lyon	France	Eric Bideaux
4	University of Minnesota CCEFP	USA	Kim Stelson
5	University of Parma	Italy	Paolo Casoli
6	University of Missouri	USA	Manring, Noah D.
7	Harbin Inst of Technology	China	Songjing Li
8	University of Bath	UK	Andrew Plummer
9	Univ of Saskatchewan	Canada	Trevis Wiens
10	Technical Univ of Technology IFD Dresden	Germany	Jurgen Weber
11	University of Naples	Italy	Adolfo Senatore
12	Yokohama National University	Japan	Kazushi Sanada
13	Beijing Institute of Technology	China	Junjie Zhou
14	Zhejiang University	China	Huayong YANG
15	IMAMOTER	Italy	Max Ruggeri
16	National Aersopace Defence Academy	Japan	Takao Nishiumi
17	Samara State Aerospace Univ	Russian Federation	Victor Sverbilov
18	Technical Univ of Turin	Italy	Massimo Rundo
19	Tampere Univ of Technology	Finland	Kalevi Huhtala
20	Wroclaw Univ of Technology	Poland	Jaroslaw Stryczek
21	Lappenraanta Univ of Technology	Finland	Heikki Handroos
22	J. Kepler Univ Linz	Austria	Rudolf Scheidl
23	American univ of Lebanon	Lebanon	Naseem Daher
24	Karlsruher Inst of Technology KIT	Germany	Marcus Geimer
25	Univ of Santa Catarina - Florianopolis	Brazil	Victor De Negri
26	Cracow University of Technology	Poland	Andrzej Sobczyk
27	South China Univ of Technology	China	Yajun Liu
28	Tech Univ Braunschweig	Germany	Ludger Frerichs
29	Linkoping Univ of Tech	Sweden	Petter Krus
30	Universitat Politècnica de Catalunya	Spain	Esteban Codina
31	Danfoss Power Solutions	Germany	Robert Rahmfeld
32	Huazhong University of Science and technology	China	Yinshui Liu
33	Aalborg University	Denmark	Per Johansen
34	INSA Toulouse	France	Jean Charles Mare
35	Institute of Technische Universität Darmstadt	Germany	Christian Schänzle
36	Continental	USA	Robeto Maddalon
37	Duplomatic	Italy	Michele Pavanetto
38	National Fluid Power Association	USA	Erik Lanke
39	ASME	USA	James Van De Ven
40	VDMA FFF	Germany	Peter-Michael Synek
41	Linde Hydraulics	Germany	Johannes Schmitz
42	Bucher Hydraulics	Switzerland	Eneko Goenechea

Votes for Board of Directors (BoB)



21 institutions voting

Current Board of Directors (BoB)

(March 2018 – February 2022) From February 2018 vote (vote from 21 institutions)



Jürgen Weber (**Chair**) *Technische Universität Dresden, Germany*



Andrea Vacca (Secretary and Treasurer) International Journal of Fluid Power Editor in Chief Purdue University, USA



Emma Frosina Universita' del Sannio, Italy



Victor De Negri Univ. of Santa Caterina, Florianopolis, Brazil



Bing Xu Zhejiang University, China

Board of Directors

Current BoB discussed following structure for GFPS governance for years 2022 - 2026.

• Each director takes one of the roles below



- Except for the IJFP, roles will be determined after the new BoB is formed
- Each director can establish a committees of GFPS members to help with his functions
- Each director/committee will report to the BoB twice a year 6 months
- Board of Director will report to the General Assembly at least once a year

GFPS in conferences

ICFP 2017 (thanks to Huayong Yang and Songjing Li) SICFP 2017 (thanks to Petter Krus) JFPS 2017 (thanks to Kazushi Sanada) ASME – Bath FPMC 2017 (thanks to Andrea Vacca and Monika Ivantysynova) IFK2018 (thanks to Hubertus Murrenhoff), 2 awards! GFPS 2018 - BACKE' MEDAL (thanks to Victor Sverbilov) ASME – Bath FPMC 2018 (thanks to Andrew Plummer, Nigel Johnston) FPM 2019 (thanks to Huayong Yang) SICFP 2019 (thanks to K. Huhtala) FPMC 2019 (thanks to J. Van de Ven) FPMC 2020 (thanks to Andrew Plummer, Nigel Johnston) DVM 2020 (thanks to Victor Sverbilow) IFK 2020 (thanks to Jűrgen Weber) GFPS 2020 - BACKE' MEDAL (thanks to Songjing Li) JFPS 2020 (thanks to Hideyuki Tsukagoshi) ICFP 2021 (thanks to Huayong Yang and Feng Wang)

GFPS 2020 IEEE publication issue. IEEE-Asia questioned on paper topic

- IEEE-Asia questioned on paper topic selection and subsequent on paper language
- conference organizer Songjing Li and BoB further reviewed / reduced papers to IEEE-Asia
- IEEE-Asia released copyright
- 25 papers to be published on IJFP
- remaining on China National Knowledge Infrastracture (CNKI)

GFPS awards

Best paper award is one of the best ways to use GFPS \$

- increases the number of awards available in fluid power field
- gives visibility to GFPS

Procedure for GFPS best paper award

- The local organizer selects the papers candidate for the award (5-10 papers)
- These papers are sent to the Secretary of the Board
- The board nominates judges (GFPS participants) among conference delegates
- The judges review the papers, attend the presentations and decide the winner
- The best paper is then communicated to the Board who ratifies
- If possible, the winner is announced at the conference concluding session, or afterwards on the GFPS website

Type of award

- Monetary prize: 500 USD (*might change in future*)
- Certificate
- Backe Medal → Given only at the GFPS PhD Symposium

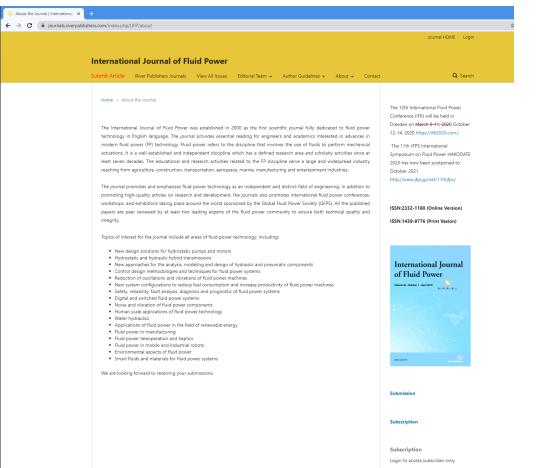
Requirements:

- The event needs to be GFPS-sponsored
- The award at the conference needs to be approved by the Board of Directors

2022 GFPS PhD Symposium

See slides at the end of the slide set

Material presented by prof Emma Frosina



- River Publishers since 2019
- Scopus, Emerging source citation index
- Scimago Q2 in 2018
- Scimago Q3-Q4 current (clarifications asked)
- No IF Θ
- 17 papers in 2021
- >20 papers in 2022
- About 50% rejection rate

Takeaways: - the journal is in high need of increasing citations.

- citations does not means new IJFP paper submissions, it means citing IJFP papers when publishing (any venue)
- GFPS institutions should promote IJFP publications (see next slides)

Recent actions

Associate Editors

Dr. Eric J. Barth, Vanderbilt University TN, USA
Dr. Eric Bideaux, Institut National des Sciences Appliquees de Lyon, France
Dr. Emma Frosina, Ph. D, University of Naples 'Federico II', Italy
Dr. Roger Fales, University of Missouri MU, USA
Dr. Takayoshi Ichiyanagi, National Defense Academy, Japan
Dr. Victor Juliano De Negri, Federal University of Santa Catarina, Brazil
Dr. Bernhard Manhartsgruber, Johannes Kepler University, Austria
Dr. Andrew Plummer, University of Bath, UK
Dr. Massimo Rundo, Politecnico Di Torino, Italy
Dr. Olivier Reinertz, RWTH Aachen University, Germany
Dr. Feng Wang, Zhejiang University, China
Dr. Juergen Weber, Technical University Dresden, Germany

International Editorial Board

Dr. Torben Ole Andersen, Aalborg University, the Netherlands Dr Wayne Book, Georgia Institute of Technology, USA Dr. Richard Burton, University of Saskatchewan, Canada Dr. Ying Chen, Zhejiang University, China Dr. Esteve Codina, Technical University of Catalonia, Spain Dr. Heikki Handroos, Lappeenranta University of Technology, Finland Dr. Ato Kitagawa, Tokyo Institute of Technology, Japan Dr. Gary W. Krutz, Purdue University, USA Dr. Songjing Li, Harbin Institute of Technology, China Dr. Noah Manring, University of Missouri, USA Dr. Jean-Charles Maré, INSA Toulouse, France Dr. Takao Nishiumi, National Defense Academy, Japan Dr. Petr Noskievic, VSB - Technical University of Ostrava, Czech Republic Dr. Jan-Ove Palmberg, Linköping University, Sweden Dr. Terenziano Raparelli, Politechnico of Torino, Italy Dr. Robert Rahmfeld, Danfoss Power Solutions, Denmark Dr. Kazushi Sanada, Yokohama National University, Japan Dr. Rudolf Scheidl, Johannes Keppler University of Linz, Austria Dr. Nariman Sepehri, University of Manitoba, Canada Dr. Adolfo Senatore, University of Naples "Federico II", Italy Dr. Jonny Carlos da Silva, Federal University of Santa Catarina, Brazil Dr. Andrzej Sobczyk, Cracow University of Technology, Poland Dr. Jacek S. Stecki, Monash University, Australia Dr. Nicolae Vasiliu, University Politehnica Bucharest, Romania Dr. Matti Vilenius, Tampere University of Technology, Finland Dr. John Watton, Cardiff University, UK

Recent Initiatives

- Paper accessibility. IJFP paper published before 2020 available online
- **Paper accessibility**. EUR 50 per individual online subscription to GFPS members
- Promotion. Fliers at conferences. Interviews to Editorial Board members <u>https://www.youtube.com/watch?v=_M0swcSv_KE</u>)

Best paper award (once a year) 2021: "A Digital Displacement Hydrostatic Wind-turbine Transmission" by W. Rampen et al. (2.44 avg views per day)

- **Special issue**. Propose to have a special issue for every GFPS sponsored event.
 - How it works: local conference chair to be the Guest Editor

GFPS2022 IFK 2022 SICFP2021 ICFP2021 NSHP 2020 GFPS 2020

- 5-7 papers to be identified from the conference papers selected for the GFPS best paper award is a possible option. Other criteria can be accepted. Important to have good reviews
- authors to be invited to submit an extended version (20%-30% difference). This solves copyright issues. Paper title can remain unchanged.

New Initiatives

- **Open access journal**. Expected publication fee EUR 500 set by publisher
 - Increase visibility of papers and chances to be cited
 - Strategies to further lower open access fees.
 - Industry sponsorship for IJFP issues
 - GFPS finances used to provide discount to GFPS members and IJFP reviewers
- Enforce citing IJFP on paper submission. To be applied by Associate Editors

Discussion points:

- GFPS participants agree on Open Access strategy, although it might not increase significantly citations
- To increase citations more stringent actions must be taken. Actions with agreement:
 - Enforce submission to IJFP to cite 2-3 IJFP papers. *Check to be added on the review tool (Andrea Vacca to act on this)*
 - GFPS sponsored conferences should have papers including 2-3 references to IJFP. *Check to be added on the review tool of the local organizer (Victor De Negri and local organizer to check on this)*

GFPS financial status

Current available \$ 23,980

Sept 2020 – June 2021 expenses:

- \$ 500 (+ bank fee) x 4 paper awards
- \$ 150 2020 tax declarations
- \$ 1,500 webmaster
- \$ 1,500 int. journal of fluid power assistant
- \$ 200 web domain

Other business

- [Weber] proposal to collect publication database from every GFPS institution and share to all GFPS participants. Sharing mode to be defined (possibly gfpsweb.org)

GFPS

2022







2022 IEEE Global Fluid Power Society PhD Symposium Napoli - Italy | October 12 - 14, 2022 Congress Centre of the University Federico II





Congress Chairs



Adolfo Senatore University of Naples Federico II

Emma Frosina University of Sannio, Benevento

GFPS Participant meeting

Tuesday, June 14th 2022











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Committees

Luca Romagnuolo, University of Naples Federico II, Italy Riccardo Amirante, Politecnico di Bari, Italy Eric J. Barth, Vanderbilt University, USA Eric Bideaux, INSA Lyon, France Massimo Borghi, University of Modena and Reggio Emilia, Italy Paolo Casoli, University of Parma, Italy Victor Juliano De Negri, Federal University of Santa Catarina, Brazil Heikki Handroos, Lappeenranta University of Technology, Finland Nigel Johnston, University of Bath, UK Petri Kuosmanen, Aalto University, Finland Perry Y. Li, University of Minnesota, USA Songjing Li, Harbin Institute of Technology, China Alarico Macor, University of Padova, Italy Bernhard Manhartsgruber, Johannes Kepler University Linz, Austria Pietro Marani, STEMS CNR, Italy Massimo Milani, University of Modena and Reggio Emilia, Italy

Tatiana Minav, Tampere University of Technology, Finland Hubertus Murrenhoff, RWTH Aachen University, Germany Damiano Padovani, Universitetet i Agder, Norway Andrew Plummer, University of Bath, UK Antonio Rossetti, ITC CNR, Italy Massimo Rundo, Politecnico di Torino, Italy Kazushi Sanada Yohama, National University, Japan Rudolf Scheidl, Johannes Kepler University Linz, Austria Andrzej Sobczyk, University of Technology, Poland Kim A. Stelson, University of Minnesota, USA Victor Sverbilov, Sarmara University, Russia Paolo Tamburrano, Politecnico di Bari, Italy Andrea Vacca, Purdue University, USA James D. Van de Ven, University of Minnesota, USA Feng Wang, Zhejiang University, China Jürgen Weber, Technische Universitat Dresden, Germany Travis Wiens, University of Saskatchewan, Canada Barbara Zardin, University of Modena and Reggio Emilia, Italy











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Main topics

- Pumps and motors;
- Fluid power components, architectures and systems;
- Control methodologies for fluid power systems and applications;
- Novel energy efficient components and systems;
- Digital and switched fluid power systems;
- Fluid power drives and transmissions;
- Safety, reliability, fault analysis and diagnosis;
- Noise and vibration;
- Fluid power in renewable energy, robotics, mechatronics and other applications;
- Human scale, human interactive, and mobile self-powered fluid power;
- Environmental aspects of fluid power;

- Hydraulic fluids, materials and tribology;
- Water hydraulics;
- Pneumatic systems;
- Industrial applications;
- Mobile and aerospace applications;
- Other related topics











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October 11, 2022 <u>Technical visit to STEMS Laboratories</u> Welcome cocktail



Program

October 12, 2022

Registrations Opening Ceremony Invited Lecture Poster Session Technical Sessions October 13, 2022 Technical Sessions Poster Sessions *Plenary Lecture* Technical Sessions Social Dinner

October 14, 2022 Invited Lecture Technical sessions

Poster session Industry Panel Session 1 Industry Panel Session 2









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PLENARY LECTURES





KATHARINA SCHMITZ RWTH Aachen University Germany



KIM A. STELSON University of Minnesota USA











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Social Program

October 11, 2022

A <u>welcome cocktail</u> will be organized on the 10th Floor Roof Top of the *Hotel Royal Continental* Participants will enjoy a spectacular view of the Bay of Naples





October 13, 2022

The social dinner will take place at the *Rosolino Club Restaurant*. Participants will enjoy tasty <u>Neapolitan food with musical entertainment</u>











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SPONSORS







*Student Registration Fees: undergraduate, postgraduate, PhD. A certification should be sent together with the registration fee.