

جسر العلوم الفلسطيني – الألماني

التواصل العلمي والمعرفي

Palestinian - German
ScienceBRIDGE

Dr. Safa Nassereldin
Local Coordinator on behalf of
Palestine Academy for Science and Technology
| PALAST

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The Palestinian-German Science Bridge

is a project financed by the German Federal Ministry of Education and Research BMBF and implemented jointly by:

Forschungszentrum Jülich GmbH
and



Palestine Academy for Science and Technology
أكاديمية فلسطين للعلوم والتكنولوجيا

to develop a joint research and education Program

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Research Center Jülich (FZJ): Facts and figures

- R&D on 2.2 km²
- Founded 11 December 1956
- Partners Federal Republic of Germany (90 %)
North Rhine-Westphalia (10 %)
- Revenue €615,7 million 2015
(39 % third-party funding)
- Employees 5,684 (total) (as at 31.12.2015)
2,048 scientists, incl.
537 PhD students
361 trainees & students on placement
1.041 visiting scientists
from 68 countries



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Research Center Jülich: Structure

- 9 institutes (50 Sub-institutes)
- 2 Project management organisations
(Project volume: €1.8 billion)

| INSTITUTE | ADMINISTRATION |
|---|--|
| <ul style="list-style-type: none"> → Institute for Advanced Simulation (IAS) → Institut für Bio- und Geowissenschaften (IBG) → Institute of Complex Systems (ICS) → Institut für Energie- und Klimaforschung (IEK) → Institut für Kernphysik (IKP) | <ul style="list-style-type: none"> → Drittmittel und Technologie-Transfer → Internationale Beziehungen (IB) → Projektträger Jülich (PTJ) → Projektträger Energie, Technologie und Nachhaltigkeit (ETN) → JuLab → Zentralbibliothek → Büro für Chancengleichheit |
| <ul style="list-style-type: none"> → Institut für Neurowissenschaften und Medizin (INM) → Jülich Centre for Neutron Science (JCNS) → Peter Grünberg Institut (PGI) → Zentralinstitut für Engineering, Elektronik und Analytik (ZEA) | |
| <p>Engineering and Technology (ZEA-1) Electronic Systems (ZEA-2) Analytics (ZEA-3)</p> | |

<http://www.fz-juelich.de>

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Palestine Academy for Science & Technology | PALAST

- Established in 1997, by a presidential decree, as a presidential independent non-governmental organization.
- Mission: building the knowledge & economic society through developing, coordinating and fostering the different fields of science & technology in Palestine, in close collaboration with relevant key stakeholders.
- PALAST is based in Ramallah, Palestine with a branch in Gaza and Jerusalem
- **Board of Directors**

President: Prof. Marwan Awartani

Secretary General: Prof. Imad Khatib

Legal advisor: Adv. Nasser Rayyes

Treasurer: Adv. Naser Rayyes

Human Sciences Coordinator: Dr. Munther Dajani

Natural Sciences Coordinator: Dr. Radwan Barakat



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PALAST International Membership

PALAST is currently an active member in several respectful consortiums:

- The Inter Academy Panel on International Issues (**IAP**)
- The Inter Academy Medical Panel (**IAMP**)
- The Human Rights Network of Academies and Scholarly Societies (**IHR**)
- The Network of Academies of Sciences in the OIC Countries (**NASIC**)
- The Consortium of Science, Technology and Innovation for the South (**COSTIS**)
- The Euro Mediterranean Academic Network (**EMAN**)
- Admitted to the All European Academies (**ALLEA**)

PALAST has 65 national fellows of distinguished scientists, and has 15 foreign fellows from Western and Eastern countries that are known as scientific leaders.

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Background



Nov. 2011:
 BMBF-
 MoEHE-
 Workshop in
 Ramallah

March 2012:
 9 students from
 PAL universities
 at IFF Spring-
 school

Sept. 2012: 1.
 FZJ-AQU
 cooperation
 workshop in
 Jülich

continuous:
 participation in
 summer-
 schools and
 short research
 visits

April 2015:
 2· FZJ-AQU
 cooperation
 workshop
 including
 additional PAL
 universities

5 MSc theses finished,
 2 PhD theses started

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Background (Cont.)



Jun. 2015:
 PPU Conf. On
 Students'
 Innovation -
 1st Workshop
 in PPU
 Campus

Oct. 2016:
 BMBF
 Consultation
 Workshop on
 BMBF STI
 Strategy with
 MENA Region

Dec. 2016:
 PALAST-FZJ
 signing PGSB
 Agreement in
 participation
 of BMBF &
 MEHE

continuous:
 Kick-off
 workshop with
 participation of
 researchers
 from Palestine
 and Germany

March 2017:
 1. PGSB Call, &
 2. BMBF STI St.
 Draft Call

New Potential for
 Academic and
 Research Cooperation

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FZJ as an example of a German research organisation

- World class science and technology
- Affiliated with German universities
- Worldwide Networks and partnerships
 - research institutions
 - large multinational projects
- Need for motivated well educated candidates
Bachelor, Master and PhD projects



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Vision for Palestine

- Build R&D infrastructure and STI Capacities.
- Establish a national multidisciplinary research centre.
- Establish a national technology services centre
- Strengthening graduate programs, in particular Ph.D. Programs.
- Transfer knowledge to Palestinian universities in the development of Graduate and Research Programmes

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FZJ Potential and Role

- Provide access for Palestinian students and scientists to Jülich's scientific infrastructure
- Assist Jülich in recruiting the brightest students from Palestinian universities for science projects
- Develop scientific cooperation between scientists in Jülich and at Palestinian Universities



Host Palestinian students and scientists at FZ Jülich for experimental thesis (BSc, MSc and PhD) and for research and stays of Jülich/Aachen scientists in Palestine

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The PGSB Program

- Supported with a total of 2,5 Mio € in 5 Years by BMBF (Federal Ministry for Education and Research) and a time-frame of 5 Years.
- German Partner = FZJ and its affiliated Universities
- Palestinian Partner = PALAST representing all Palestinian universities

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The PGSB Implementation

➤ Research Cooperation Programme

- Staff exchange
- Joint Workshops

➤ Joint Education Programme

- BSc projects (3 months) and/or MSc projects (6 months) every year 2017 to 2021
- 2 PhD projects (3 years) starting 2017
- 6 PhD projects (3 years) starting 2018
- 6 PhD projects (3 years) starting 2019

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The PGSB Joint Education Program

➤ BSc. and MSc. levels

- Classroom and desk top parts at Palestinian university (to be included in curriculum as 'individual study plan')
- Experimental work at Forschungszentrum Jülich
- Final exam / thesis defence and degree at Palestinian university (with participation of Jülich supervisor)
- For the most promising cases: development of a topic and research plan for a follow-up PhD project in Jülich

➤ PhD Level

- Regular German PhD Programme:
 - Post-graduate studies and research in Jülich
 - Defence and degree at German university
 - Embedded in cooperation project between Jülich research group and Palestinian faculty member (co-supervisor) – Developed later to; Bilateral PhD Programme ("Sandwich PhD") and Palestinian PhD Programme

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The PGSB Research Cooperation Staff Exchange

Main activities:

- Short visits and guest lectures of FZJ scientists at Palestinian universities (typically 2 to 3 weeks each)
- Guest visits of Palestinian faculty at FZJ (typically 2 to 3 months per year)
- One cooperation workshop per year, alternating in Jülich and in Palestine to form new and strengthen existing cooperation.

Objectives:

- Assure qualified guidance and adequate selection of students participating in the Joint Education Programme
- Establish a solid and lasting cooperation relationship and secure adequate support for returning alumni in setting up their own research groups
- Gradually integrate Palestinian faculty into research activities in Jülich and enable use of relevant (national, European, or international) research funding programmes

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Way forward

How to participate:

If you are interested in establishing cooperation with a research group at Forschungszentrum Jülich:

- Check the project offers at www.fz-juelich.de/ue/ProjectOffers
- If you find something matching your interests and qualifications, contact the scientist(s) making the offer.
- Use the template available at [Faculty Profile](#) to introduce yourself and describe your qualifications.
- In case of good scientific match and mutual interest, the Jülich host and Palestinian scientist can obtain financial support for staff exchange activities by jointly submitting a cooperation [Road Map](#) using the template available at Roadmap.
- **Submission deadline:** Road map proposals can be submitted continuously and will be evaluated at regular cut-off dates.

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Application for a PGSB thesis project offers

- **Project offers are updated continuously - so please check regularly**
In case of interest, please contact the advertising supervisor(s) first.
- [Offers for MSc Thesis Projects](#)
- [Offers for PhD Thesis Projects](#)
- [Cooperation Offers involving MSc Projects](#)
- [Cooperation Offers involving PhD Projects](#)
- [Cooperation Offers involving MSc and PhD Projects](#)
- [Offers to establish new Cooperation Projects](#)
- [On-going Cooperation Projects open for Additional Partners](#)
- Please see also our short term project offers in the framework of the [Scholarship Program of the German State of North Rhine-Westfalia](#) **(application deadline usually end of February!)**

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Find us on the web:

http://www.fz-juelich.de/ue/DE/Leistungen/Internationale_Beziehungen/Kooperationen/PGSB/_node.html

The screenshot shows a web browser window displaying the Jülich Forschungszentrum website. The address bar shows the URL: http://www.fz-juelich.de/ue/DE/Leistungen/Internationale_Beziehungen/Kooperationen/PGSB/_node.html. The page is in German and features the Jülich logo and navigation menu. The main content area is titled "Unternehmensentwicklung (UE)" and includes a search bar and language options (DEUTSCH | ENGLISH). The page highlights the "Palestinian-German Science Bridge PGSB" project, which is a pilot project financed by the German Federal Ministry of Education and Research BMBF and implemented jointly by Forschungszentrum Jülich GmbH and Palestinian Academy for Science and Technology PALAST. The page describes the project's goals, objectives, and long-term vision, and provides links to related activities and milestones. The sidebar on the left contains links to "Main Activities", "PGSB Research Cooperation Programme", "PGSB Joint Education Programme", "Milestones", and "SERVICE" (Mitarbeiter, Publikationen, Anfahrt, Downloads). The right sidebar features the logos of the "Palestinian-German ScienceBRIDGE" and "PALAST", and mentions cooperation with the "Federal Ministry of Education and Research".

Suchbegriff DEUTSCH | ENGLISH [Institutswegweiser](#)

Unternehmensentwicklung (UE)

AKTUELLES LEISTUNGEN KARRIERE ÜBER UNS

Palestinian-German Science Bridge PGSB

PALESTINIAN-GERMAN SCIENCE BRIDGE PGSB

Main Activities

PGSB Research Cooperation Programme

PGSB Joint Education Programme

Milestones

SERVICE

Mitarbeiter

Publikationen

Anfahrt

Downloads

Palestinian-German Bridge PGSB

The Palestinian-German Science Bridge is a pilot project financed by the German Federal Ministry of Education and Research BMBF and implemented jointly by Forschungszentrum Jülich GmbH and Palestinian Academy for Science and Technology PALAST to develop a joint research and education programme.

It provides the most brilliant science and technology graduates from Palestinian universities with access to state-of-the-art equipment for the experimental part of their Master thesis and the possibility to follow-up with a PhD thesis project in Jülich. After successful completion, PGSB alumni are expected to return to a Palestinian university to establish their own research groups in science and technology, contribute to the development of new PhD programmes there, and thus create the nucleus of a Palestinian science and technology infrastructure.

Objectives:

- Provide access for Palestinian students to Jülich's scientific infrastructure
- Assist Jülich in recruiting the brightest students from Palestinian universities for Bachelor, Master and PhD projects
- Transfer knowledge to Palestinian universities in the development of Graduate and Research Programmes
- Facilitate the mobility and exchange of students and academics in both directions
- Give highly qualified and motivated Palestinian scientists a perspective for adequate career opportunities – in Palestine, Germany, or worldwide.
- Support the peace-making efforts of both countries in the area

Long-term vision:

- Continued cooperation with returning PGSB alumni as they establish their own research groups and set up PhD programmes at Palestinian universities.
- Establish critical mass to create a nucleus for the development of a national science and technology infrastructure in Palestine.

In cooperation with

PALAST

Promoting Science & Technology

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CONTACTS

http://www.fz-juelich.de/ue/DE/Leistungen/Internationale_Beziehungen/Kooperationen/PGSB/Milestones/_node.html

The PGSB Events

PGSB Kick-off Workshop: Forschungszentrum Jülich , 7 – 9 Dec. 2016

1st Palestinian-German Cooperation Workshop

Location: Ramallah and different Universities

Time: Sat. 6th – Thu. 11th May 2017

Main Goal:

- To form and the strengthen new/existing cooperation,
- To allow thesis candidates and Palestinian co-supervisors to meet in person before making any final judgment on the suitability for the projects offered by FZJ Scientists.
- To give the researchers with thesis candidates and/or cooperation partners support opportunity through PGSB.
- To encourage new scientists to establish contacts with Jülich Scientists and could further benefit from the PGSB program.

➤ 2nd Palestinian-German Cooperation Workshop

Location: Bethlehem University

Time: Sun. 12th – Thu. 16th November 2017

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Palestinian-German Science Bridge - PGSB Fellows - PHD

| Project topic | PAL Uni | PAL Supervisor | D Uni | Institute | D Supervisor | Name |
|---|---------|---------------------|-------|---|-------------------------|------------------|
| Algal Fertilizer | PPU | Dr. Rami Arafeh | | Institute of Bio- and Geosciences: Biotechnology (IBG-1) | Dr. Sc. Ladislav Nedbal | Loay AlShawamreh |
| Features extraction in resting state brain activity based on new machine learning methods | PAUC | Dr. Ahmad Hasasneh | RWTH | Institute of Neuroscience and Medicine: Medical Imaging Physics (INM-4) | Dr. Jürgen Dammers | Asma Sbaih |
| Neutron and synchrotron radiation measurements on materials for magnetocaloric cooling | AQU | Prof. Salman Salman | RWTH | Jülich Centre for Neutron Science: Scattering Methods (PGI-4/JCNS-2) | PD Dr. Karen Frieze | Nour Maraytta |

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Palestinian-German Science Bridge - PGSB Fellows - MSc

| Project topic | PAI Uni | PAL Supervisor | D Uni | Institute | D Supervisor | Name |
|--|---------|---------------------------|-------|--|-----------------------|--------------------|
| Master Project in Computational Soft Condensed Matter Physics | BZU | Dr. Abdallah Sayyed-Ahmed | Köln | Institute of Complex Systems: Theoretical Soft Matter and Biophysics (ICS-2/IAS-2) | Dr. Thorsten Auth | Sameh Othman |
| Detection of metabolites from spoilage microorganisms in food products using printed electrochemical sensors | PTUK | Dr. Nawaf Abu Khalaf | RWTH | Institute of Complex Systems: Bioelectronics (PGI-8/ICS-8) | Dr. Alexey Yakushenko | Basima Abu Rumaila |
| Durable Cathodes for All-Solid-State Lithium Ion Batteries | AQU | Prof. Salman Salman | RWTH | Institute of Energy and Climate Research: Materials Synthesis and Processing (IEK-1) | Dr. Robert Mücke | Fadi Shaheen |

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Palestinian-German Science Bridge - PGSB Fellows - MSc

| Project topic | PAI Uni | PAL Supervisor | D Uni | Institute | D Supervisor | Name |
|--|---------|-------------------------|-------|--|----------------------------|--------------------|
| Sustainable power solution from monolithic integrated PV-battery | ANU | Dr. Tamer Khatib | RWTH | Institute of Energy and Climate Research: Photovoltaics (IEK-5) | Dr. Tsvetelina Merdzhanova | Mohammed Jaber |
| New concepts for private mobility in Palestine – Economic incentives and fiscal consequences | ANU | Prof. Sameer Abu-Eisheh | FH-AC | Institute of Energy and Climate Research: Systems Analysis and Technology Evaluation (IEK-STE) | Dr. Wilhelm Kuckshinrichs | Abdelnaser Dwaikat |
| Projects for Time Reversal Invariance experiment at COSY | AQU | Prof. Salman Salman | Köln | Institute for Nuclear Physics: Experimental Hadron Dynamics (IKP-2) | Prof. Dr. Hans Ströher | Khalil Abuayyash |

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PGSB Fellows - Short term Visits

| Degree aimed for | Home supervisor | Home university | Host institute | Host | Name |
|------------------|---|-----------------|--|---|-------------------|
| PhD | Prof. Adnan Lahham Prof. Salman Salman | AQU | Institute for Nuclear Physics: Experimental Hadron Dynamics (IKP-2) Peter Grünberg Institute: Electronic Properties (PGI-6) | Prof. Dr. Hans Ströher Prof. Dr. Claus M. Schneider | Falastine Abuasbi |
| MSc | Prof. Salman Salman | AQU | Central Institute of Engineering, Electronics and Analytics: Engineering and Technology (ZEA-1) Institute for Nuclear Physics: Experimental Hadron Dynamics (IKP-2) Peter Grünberg Institute: Electronic Properties (PGI-6) | Prof. Dr. Ghaleb Natour Prof. Dr. Hans Ströher Prof. Dr. Claus M. Schneider | Kinan Al-Namourah |

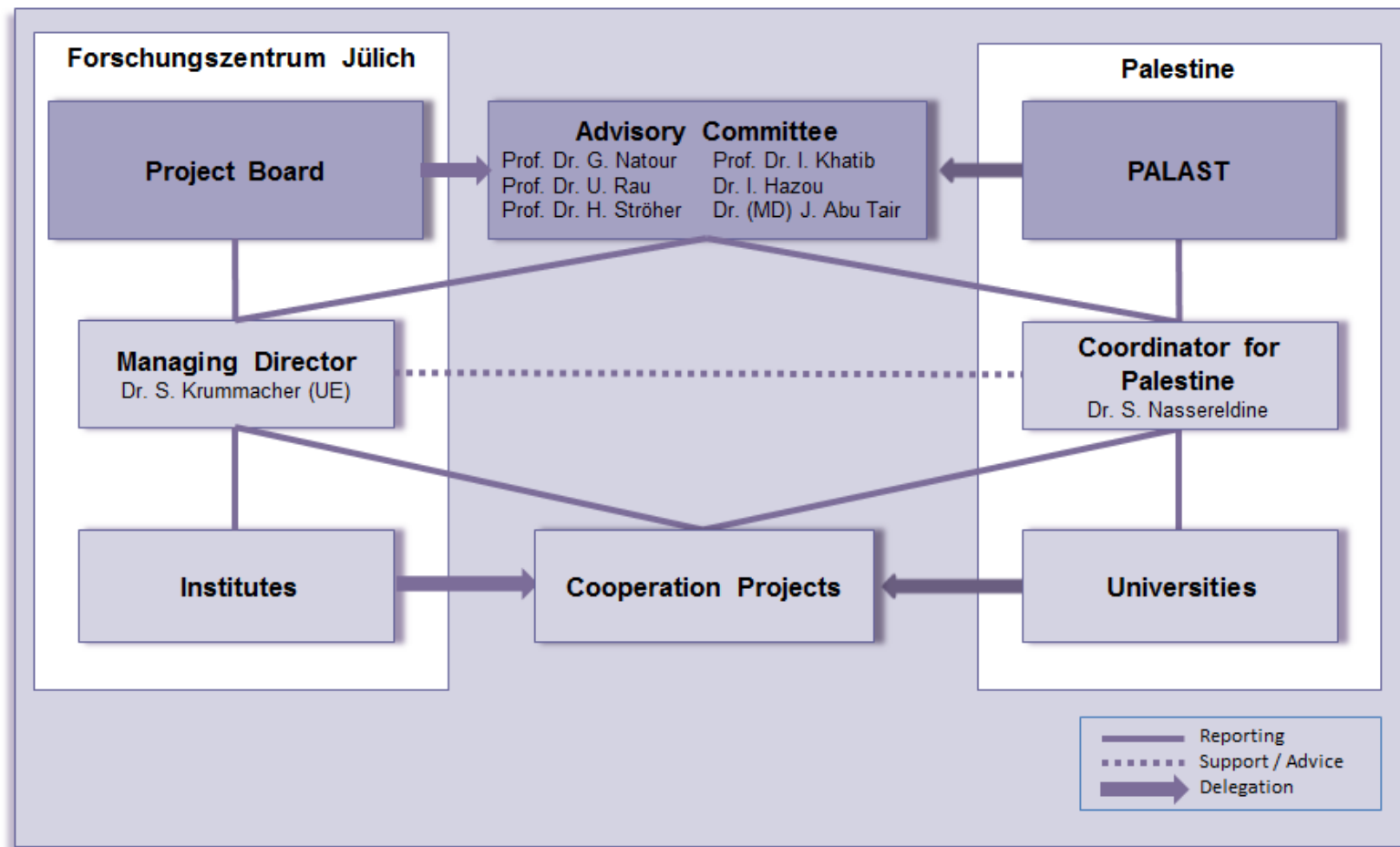
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Management Structure



The PGSB Joint Committee

Prof. Dr.-Ing. Imad Khatib (Chair), Palestine Polytechnic University / PALAST Secretary General

Dr. Irene Hazou, Bethlehem University / PALAST Jerusalem Board

Dr. (MD) Jawad Abu Tair, Arab American University / PALAST Jerusalem Board

Prof. Dr. Ghaleb Natour (Chair), Director Central Institute of Engineering, Electronics and Analytics (ZEA)

Prof. Dr. Uwe Rau, Director Institute of Energy Research 5 – Photovoltaic (IEK-5)

Prof. Dr. Hans Ströher, Director Institute for Nuclear Physics – Experimental Hadron Dynamics (IKP-2) / Chair Scientific

and Technical Council (WTR)

Tasks and responsibilities:

- general quality assurance
- supervision of the project, in particular the selection process
- settlement of any cases of dispute

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The PGSB Contacts

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