Proposal for Hosting

SAS 2021 The 18th Conference on Small Angle Scattering

in Taiwan

Proposed by



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TABLE OF CONTENTS

I.	Motivation	1
II.	Proposers	2
	II-1. National Synchrotron Radiation Research Center (NSRRC)	2
	- Current TLS 23A SAXS beamline at TLS	3
	- Future brilliant TPS SAXS	5
	- NSRRC Neutron Program	5
	II-2. Taiwan Neutron Science Society (TWNSS)	5
	II-3. Possible Sponsors	5
	- Physics Research Promotion Center (PRPC)	5
	- Taiwan Protein Project (TPP)	5
	II-4. Possible Co-Sponsors	5
III.	Proposed Conference Structure	6
	III-1. Proposed Dates	6
	III-2. The Local Organizer	6
	- Proposed Conference Chair & Co-chairs	6
	- International Advisory Committee	6
	- Local Organizing Committee	6
	III-3. Scientific Programs	6
	III-4. Special Sessions	7
	- Industrial Applications	7
	- Food Science Applications	7
	- Hierarchical Biological Structures	7
	III-5. Support	7
	III-6. Venue	7
	III-7. Program Overview	8
	III-8. List of Hotels for Accommodation	8
	III-9. Conference Organization	9
IV.	Finance	9
V.	About Taiwan	9
	V-1. Fact Sheet	10
	V-2. Travel	10
	- Flight	10
	- Visa	11
	- Local Transportation	12
	V-3. Excursion Options	13
	V-4. Aboriginal Culture	16
	V-5. Tea Culture	16

Meeting the Requested Proposal Bid Criteria

1.	the proposed date(s) for the Conference	cf. P.6
2.	a motivation for wanting to host the Conference	cf. P.1
3.	the names of the members of the Local Organizing Committee (the Chairperson(s)	cf. P.6
	should be indicated)	
4.	the name(s) of the Chairperson(s) of the Scientific Program Committee	cf. P.6
5.	evidence of previous successful conference organization	cf. P.9
6.	details of any special scientific sessions or initiatives that are proposed	cf. P.6
7.	details of any local initiatives or legislation that may promote (e.g., scientific or	cf. P.11
	cultural exchange agreements) or hinder (e.g., visa restrictions, travel embargoes) the	
	attendance of delegates from various parts of the world	
8.	details of the proposed venue and its infrastructure (which must be capable of seating	cf. P.7
	350 delegates in Plenary sessions and provide for multiple parallel sessions, poster	
	sessions, and a commercial exhibition)	
9.	a representative picture of, or a link to the website for, the venue	cf. P.7
10.	details of the convenience of delegate travel to and from the venue	cf. P.12
11.	details of the capacity, cost and distance of delegate accommodation (a range of	cf. P.8
	accommodation is preferred)	
12.	a projection of the standard delegate registration fee and details of what it will cover	cf. P.9
13.	details of support for students, young scientists, and scientists from under-privileged	cf. P.7
	countries	
14.	details of the likely climatic conditions at the venue on those dates	cf. P.9
15.	details of local tourist attractions and possible extra-curricular social engagements	cf. P.13

I. Motivation

National Synchrotron Radiation Research Center (NSRRC) and Taiwan Neutron Science Society, (TWNSS) will be proud of taking the responsibility for hosting the SAS 2021 in Taiwan. Currently, NSRRC not only provides the major SAXS facility to the domestic and international researchers but also takes charge of domestic neutron scattering development; whereas TWNSS represents neutron users and promotes all sorts of neutron science and applications. With hospitable people, modern SAXS facilities, and eminent researchers on the beautiful island of Taiwan, FORMOSA nicknamed anciently, we are devoted to organize an attractive conference program together with an international committee, to make the SAS 2021 a memorable, remarkable, and wonderful event for the SAS community. Through hosting SAS 2021, we also intend to take the great opportunity to promote domestic SAS activities related to the new brilliant 3 GeV Taiwan Photon Source (TPS) starting to operate in 2016 and a neutron program collaborated with the ANSTO, Australia.

Why NSRRC/TWNSS Host the SAS 2021 in Taiwan?

- We are proud of being part of the international SAS community, and would like to make a contribution.
- We value our resources and experiences, and would like to promote the local SAS activities.
- NSRRC has just completed a new 3 GeV synchrotron source TPS, one of the brightest synchrotron light sources in the world. Its new, innovative beamlines associated with SAS will be available to the worldwide SAS community, including:
 - 1. Coherent X-ray scattering beamline (with SAXS) in 2016;
 - 2. BioSAXS beamline in 2018;
 - 3. High flux SAXS/WAXS beamline in 2020.
- NSRRC is also operating a 1.5 GeV synchrotron source, with one dedicated SAXS beamline that contributes to the SAS community.
- Government generously supports international conferences held in Taiwan.
- The costs for holding the SAS 2021 in Taiwan are reasonable.
- Taiwan has reciprocal and unilateral visa exemption arrangements with many countries.
- The distinct culture, friendly people, delicious food, and splendid geological wonders are appreciated by international visitors.
- Centrally located in East Asia, Taiwan is easily reached with direct flights or quickly connected from nearby hub cities, like Bangkok, Tokyo, Osaka, Hong Kong, Singapore, and Seoul.



II. Proposers

II-1. NSRRC

National Synchrotron Radiation Research Center (NSRRC), a government funded national facility, is located in Hsinchu Science Park, which is deemed as a successful repeat of Silicon Valley in Taiwan. Situated at the northwestern Taiwan, Hsinchu City is approximately 75 km south of the capital city, Taipei. The NSRRC site has an area of 14 hectares with several other research institutes nearby, including the National Tsing Hua University, the National Chiao Tung University, the National Center for High-performance Computing, Instrument Technology Research Center, and the Industrial Technology Research Institute.



Bird view of NSRRC's two synchrotron light sources (TLS and TPS)

NSRRC is currently operating two synchrotron light sources, Taiwan Light Source (TLS) and Taiwan Photon Sources (TPS). The first synchrotron accelerator, TLS, is the first third-generation 1.5 GeV synchrotron light source facility in Asia and the third globally. It has lit up Taiwanese academia for the last two decades. Its construction began in 1986, and the first electron beam was successfully stored in 1993. It was designed and constructed domestically and became operational in 1993.

Although TLS is a low-energy machine of circumference 120 m, it runs in a top-up injection mode and has nine insertion devices, turning the center into a world-class facility with state-of-the-art research capabilities in a wide spectral range from IR to X-ray regions. In 2004, the NSRRC was the second synchrotron facility in the world to employ a superconducting radio frequency (SRF) cavity. In 2005, the NSRRC became one of the four facilities around the world to achieve full top-up operation. Since the TLS was first made available to users twenty years ago, the numbers of beamlines has increased from three to twenty-five (not including two contract beamlines at SPring-8), and fifty experimental stations of various types are currently in operation. With the strong support from the National Science Council, the Taiwan Beamlines Project at SPring-8 (Japan), proposing the construction of two hard X-ray beamlines, was launched in 1998, to enhance hard X-ray research. The success of this project and its contribution to hard X-ray in Taiwan surely inspired the birth of the TPS. The idea of building another synchrotron light source with higher electron energy was brought up by the Board in 2001. The proposal was officially approved in 2007, and the construction got underway in 2010. TPS, 518.4 meters in circumference, is equipped with a low-emittance synchrotron storage ring, a 150 MeV linear accelerator, and a 3-GeV booster synchrotron. The photon brightness is three orders of magnitude higher than that of the TLS in the X-ray region. The phase I operation of TPS will use two sets of KEK-B type superconducting RF cavities to achieve an electron current of 500 mA in a top-up injection mode. Fully taking advantage of high brilliance of its source, NSRRC is currently constructing and installing seven TPS phase-I beamlines to be ready to users in 2016. As one of the brightest synchrotron light sources in the world, the TPS will be an advanced large-scale multi-discipline X-ray facility for domestic and international users. TPS will also open up synchrotron radiation research in Taiwan to more diverse fields especially in biomedicine and nanoscience technologies.

NSRRC attracts users from academic and technological communities worldwide. Each year, more than ten thousand visits of scientists and students in various scientific fields to perform experiments using TLS and two Taiwan beamlines at SPring-8. These endeavors aim to explore the vast universe, scrutinize the complicated structures of life, discover novel nanomaterials, create a sustainable environment of green energy, unveil living things in distant past, and deliver better and richer material and spiritual lives to mankind.

- Current TLS 23A SAXS beamline at TLS

Since May 2009, a dedicated small/wide angle X-ray scattering (SWAXS) endstation located at BL23A beamline has been opened to all NSRRC users. The size of 23A users is roughly 150 groups. The SWAXS instrument aims for structural characterization of air-liquid interfaces, thin films, and solution and bulk specimens, covering the length scale from ~0.1 nm to ~300 nm and the research

fields in soft matter, nanomaterials, and alloy.

The BL23A SWAXS endstation is featured in simultaneous, time-resolved SAXS/WAXS, using DSC, shears, or stretching devices for polymers and liquid crystals. Solution SAXS for colloidal particles, proteins, and biomacromolecules can be conducted,



with a 4-syringe stopped-flow system. In the double multilayer 23A SWAXS Endstation 23A SWAXS Endstation

photons/s, scattering time resolution can be within a second for structural dynamics studies on polymer crystallization; meanwhile, the double crystal monochromator (DCM) mode for a beam of a few eV energy resolution also makes anomalous scattering available for multiphase nanoparticles, composites, unilamellar lipid vesicles, and alloys, containing elements of characteristic X-ray absorptions in the energy region between 5-23 keV. Grazing incidence SAXS/WAXS for thin films/monolayers of polymers, lipids or nanoparticles on solid substrates can be performed. With a deflecting mirror which precisely bends the X-ray beam downwards, GISAXS becomes a viable technique used to study nanostructures of monolayer/multilayer films formed at the air-liquid interface. The recent development in SAXS under extreme environments, includes the followings:

GISAXS/GIWAXS with spin-coating

A thermostated chamber with solvent-vapor-flow control has been developed at NSRRC 23A SWAXS Endstation, allowing observation of time-resolved, simultaneous GISAXS/WAXS upon spin-coating of polymer films, in 10 millisecond resolution.



Protein solution SAXS with online gel filtration Online high-performance liquid chromatography (HPLC) and UV-Vis absorption are incorporated to the NSRRC 23A SWAXS endstaiton, allowing in-situ protein solution gel filtration for correlated global and local structures observations, under a thermostated

sample temperature range of 281-353K.



NSRRC Scanning HPLC/SAXS/UV-vis setup

> SAXS/WAXS under high pressure (0.1-25 GP) and low temperature (8-350 K)



SAXS/WAXS data collected for pressure-induced gelatinization of starch granules

The NSRRC 23A SWAXS endstation is also equipped with a high-pressure/low-temperature (HPLT) system that allows SAXS/WAXS data collection under pressures from 0.1 GPa to 25 GPa at 8 - 350K.



Near Future brilliant SAXS beamlines at Taiwan Photon Source

> <u>25A Coherent X-ray Scattering (CXS) in 2016</u>

The TPS Coherent X-ray Scattering (CXS) beamline will be operational in 2016. The CXS beamline mainly focuses on XPCS and carries excellent SAXS capability.

A dedicated Biological SAXS (BioSAXS) beamline in 2018

With an undulator source, the TPS BioSAXS beamline under construction will have an X-ray energy range of 4-23 keV and a flux above 10¹³ photons/s.

An additional TPS high-flux SAXS/WAXS beamline will be operational in 2020.

NSRRC Neutron Program

Currently NSRRC is in charge of a national neutron program, including cultivating neutron users (including SANS users), developing neutron science in Taiwan, and operating SIKA, a cold neutron triple-axis spectrometer, at Australian Nuclear Science and Technology Organization (ANSTO).

II-2. TWNSS

With the efforts of 38 domestic scholars, Taiwan Neutron Science Society, TWNSS was founded on February 14, 2009. The purpose of TWNSS is to facilitate neutron science and applications. After years of efforts, the number of its members has increased from 68 to 288. The research fields include molecular science and engineering, chemistry, chemical engineering, life science, earth science and resource engineering, materials science, physics, nuclear engineering and nuclear energy, agricultural

electronics. electrical chemistry, engineering, optical engineering, mechanical engineering and so on.

In order to promote neutron science, TWNSS organizes conferences and workshops every year and invites experts to lecture on the principles and applications of neutron science as well as neutron data analysis.

The current chair of TWNSS is Prof. Hsiung Chou



(NSYSU).

II-3. Possible Sponsors

- **Physics Research Promotion Center (PRPC)**
- **Taiwan Protein Project (TPP)**

III. Proposed Conference Structure

III-1. Proposed Dates

October 17-22, 2021 Annual average temperature in October: 24.5 °C/76.1 °F

III-2. The Local Organizer

Proposed Conference Chair & Co-chairs
Chair: Director of NSRRC - Prof. Shangjr Gwo
Co-Chair: Chairman of TWNSS - Prof. Hsiung Chou (NSYSU)
Honorary Chair: Academician - Prof. Sow-Hsin Chen (M.I.T.)

(2015 Guinier Prize Winner)

Honorary Co-Chair: Academician - Prof. Ming-Daw Tsai (A.S.)

- International Advisory Committee

To be determined.

- Local Organizing Committee*

Yu-Shan Huang (NSRRC)
Wei-Tsung Chuang (NSRRC)
Jason Stewart Gardner (NSRRC)
U-Ser Jeng (NSRRC)
Shang-Te Hsu (AS)
Meng-Chiao Ho (AS)
Kung-Hwa Wei (NCTU)
Jauyn Grace Lin (CCMS)
*See Appendix for details

Rong-Ming Ho (NTHU) Hsin-Lung Chen (NTHU) An-Chung Su (NTHU) Tsang-Lang Lin (NTHU) Ya-Sen Sun (NCU) Yeo-Wan Chiang (NSYSU) Cheng-Si Tsao (INER) Hsi-Mei Lai (NTU) Wei-Fang Su (NTU) Shih-Huang Tung (NTU) Shu-Ying Wang (NCKU) Chi Wang (NCKU) Jrjeng Ruan (NCKU) Chieh-Tsung Lo (NCKU)

III-3. Scientific Programs

Proposed sessions:

- Colloids and Complex Fluids
- Polymers and composites
- Functional thin films
- Hierarchical Materials
- Hybrid and Biomaterials
- Magnetism and Material Science
- Energy Materials



- Nanoparticles
- Structural Biology
- Interfaces and Surfaces
- Kinetics and dynamics
- Instruments and Techniques
- Dimensional Metrology by SAS
- Data Analysis, Data Formats, SAS Standards, and Software

III-4. Special Sessions

- <u>SAXS for Industrial Applications</u>: In view of the very successful industrial lunchtime session: "Industrial and Technological Applications of Small-Angle Scattering" organized by Elliot Paul Gilbert (ANSTO) and U-Ser Jeng (NSRRC) in SAS2015, Berlin.
- <u>SAS for Food Science Applications</u>: In view of increasingly more SAS applications in food sciences.
- <u>Hierarchical Biological Structures</u>: To promote the use of Ultra SAS (USAXS/USANS) in biological hierarchical structures.

III-5. Support

Young scientists and attendees from developing countries will receive 30-50% reduction in registration fee.

III-6. Venue

Taipei Nangang Exhibition Center

(Website: http://www.twtcnangang.com.tw/?Lang=en-US)

- Taipei Nangang Exhibition Center is about 15-minute drive from the Taipei World Trade Center and about 50-minute drive from Taoyuan International Airport (TPE).
- Taipei Nangang Exhibition Center can be easily reached by taking either Bannan (Blue) Line or Wenhu (Brown) Line of Taipei Metro.
- The major room, equipped with advanced AV facilities, has a capacity of 500 people. Other rooms will be available for parallel sessions. There is ample space around conference rooms for posters and booths.





Rooms and Capacities Available at the Venue		
Plenary Halls		
Room 401	420 people	
Room 402	380	
Room 504	510	
Session Rooms		
Room 402a, 402b, 402c	110 people	
Room 402a+b, 402b+c	230	
Room 403	125	
Room 404	110	
Room 501	120	
Room 503	130	
Room 504a, 504b, 504c	150	
Room 504a+b, 504b+c	320	

III-7. Program Overview

The 5-day program covers the proposed topics, and includes special events shown below:

- Welcome reception will be scheduled in the evening of the day before Day 1.Conference group photos will be taken on Day 2.
- Facility tour to the 3-GeV Taiwan Photon Source in Hsinchu will take place in afternoon of Day 3.
- Banquet will be planned on Day 4 at the Taipei World Trade Center where promises a spectacular night view of Taipei 101.
- Closing ceremony will held in the afternoon of Day 5.

III-8. List of Hotels for Accommodation

The accommodation options we recommend range from budget to luxury hotels.

Hotel	*	Price	Distance to Venue
			3 mins by taxi
May Rooms Taipei House	2	USD 18-53	10 mins by foot
			15mins by bus
Formace 101 Hostal	2	USD 16-30	20 mins by taxi
ronnosa ioi nostei	Ζ		35 mins by Metro
Formul Hotel Nancone	2	USD 90-142	4 mins by taxi
rorward noter Nangang	3		6 mins by foot
Gallery Hotel	4	USD 119-202	6 mins by taxi
King of France Palace Hotel	4	USD 68-106	7 mins by taxi
Fushin Hotel	5	USD 76-173	5 mins by taxi
	5	USD 85-515	22 mins by taxi;
Howard Civil Service International House			45 mins by Metro

* Taxi: The fare starts at TWD 70, and stays there for the first 1.25 kilometers. Thereafter, the fare gradually works its way up with TWD 5 every 200 meters. If the taxi is moving under 5 km per hour, the rate is TWD 5 every 80 seconds. A surcharge of TWD 20 per trip applies from 23:00 to 06:00 and on some holidays. A few but not all taxis accept credit cards.

III-9. Conference Organization

Near Future Conference Organization			
Conference	Time	Expected Participants	
2019 3 rd Asia-Oceania Conference on Neutron	2019	400	
Scattering (by TWNSS)			
2018 th13 International Conference of Synchrotron	2018	1000	
Radiation Instrumentation (by NSRRC)			

Conference	Time	Participants
2013 Pacific Polymer Conference (by The	Nov.17-22, 2013	1000
Polymer Society, Taipei (by PST)		
Macro 2008 (by PST)	Jun.29-Jul.4, 2008	1400

IV. Finance

IV-1. Proposed Registration Fee

Participant Type	Early Bird	Regular
Regular	USD 580	USD 680
Postdoctoral	USD 460	USD 560
Student	USD 380	USD 480
Accompanying Person	USD 100	USD 100

*Registration fees for regular, postdoctoral and student participants cover reception, lunches, snack, banquet (incl. transportation), and conference program/materials.

*Registration fee for an accompanying person covers reception and banquet (incl. transportation).

* Ten students will be selected as the scholarship recipients and given free registration.

V. About Taiwan

According to the meteorological data collected by the Taipei Weather Station and provided by the Central Weather Bureau, October is the best timing to tour in Taipei with regards to temperature and humidity. The average temperature in October is 24.5 °C/76.1 °F. The weather in October is comfortable and is out of typhoon season, so it will be convenient to travel in Taiwan.

The cultural kaleidoscope of Taiwan's capital city pulses wherever you go. Incense-veiled temples dating back to dynastic times blend seamlessly with a neon street life of a decidedly more modern era. Taipei has dozens of world-class restaurants where gourmets can sample the best regional Chinese cuisines; and for the gourmand, there are plenty of night markets serving up scrumptious evening snacks in an environment of chaotic excitement and fun.

V-1. Fact Sheet

- The capital city: Taipei.
- Population: 23.4 million.
- A multilingual land (major languages: Mandarin, Taiwanese Hokkien, Hakka).
- Mean monthly temperatures from 24°C (76°F) to 29°C (84.2°F) in autumn.
- A nominal GDP per capita of nearly USD 22,600, the 35th-highest among the 184 ranked economies in the IMF database.



- The world's 18th largest merchandise importer and 20th largest merchandise exporter ranked by WTO according to the statistic released in 2014.
- More than 100 percent of the mobile penetration rate.
- No.18 ranking for "Networked Readiness Index" out of 143 countries in the World Economic Forum's Global Competitiveness Report 2015.
- Major religions: Buddhism, Taoism, and Christianity. One of the most religiously plural and highly tolerant societies in the world.

V-2. Travel

• Flight

Taiwan is centrally located and only a short flight away to most major cities in Asia. Taiwan's geographical location, coupled with a great trading environment, relaxed travel regulations as well as years of experience working with European and American countries has effectively been bridging the West with Asia. This makes Taiwan the obvious and most convenient gateway to the rest of Asia.



International flights in Taiwan are well developed and

there are three major international airports, Taoyuan International Airport (TPE), Taipei Songshan Airport (TSA) and Kaohsiung International Airport (KHH). The average flight time from Taiwan to major cities in the Asia-Pacific region is only two-and-a-half hours. A direct flight from the West Coast of the U.S. to Taiwan takes only 12 hours, and flights are daily; those from Amsterdam, Paris, or Moscow to Taiwan take about 14 hours.

- Taoyuan International Airport (50 minutes from Taipei)

Taoyuan International Airport is Taiwan's main international airport with two terminals and the home base of two international carriers (China Airlines and Eva Air). Located 47.5 km to Taipei, it has good connections to major Asian cities, North America and Europe. The airport has direct buses to



major cities in Taiwan. U-Bus company operates shuttles to High Speed Rail Taoyuan Station for high-speed trains to Hsinchu, Taichung, Chiayi, Tainan, and Kaohsiung. Alternatively frequent buses go to Zhongli Transit Station where mainline trains operated by Taiwan Railways Administration (TRA) are accessible and connecting to different regions on the island. A new third terminal will open in 2017 to cope with increasing flights between Taiwan and the rest of the world.

- Songshan Airport (inside Taipei city, Asia regional flights)

Songshan Airport in downtown Taipei serves mostly domestic flights while limited daily charter flights to Mainland China, Japan, and South Korea are also available. In addition, it can be easily reached by Taipei Metro.

• Visa

- Countries Eligible for Visa-exempt Entry

The nationals of the following countries are eligible for the visa exemption program, which permits a duration of stay up to 90 days: Andorra, Australia (Effective from January 1, 2015 for one year), Austria, Belgium, Bulgaria, Canada,



Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Republic of Korea, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, the Netherlands, New Zealand, Norway, Poland, Portugal, Romania, San Marino, Slovakia, Slovenia, Spain, Sweden, Switzerland, U.K., U.S.A. and Vatican City State. The nationals of the following countries are eligible for the visa exemption program, which permits a duration of stay up to 30 days: Malaysia and Singapore.

• Countries Eligible for Landing Visas

- 1. Holders of Bruneian passport with validity of more than six months.
- 2. Holders of Turkish passport with validity of more than six months.
- 3. Holders of Macedonian passport with validity of more than six months.
- 4. Holders of emergency or temporary passports with validity of more than six months for nationals of those countries (except for U.S.A.) eligible for visa-exempt entry.

• Local Transportation

- Taipei Metro System

The Taipei Rapid Transit Corporation operates the Taipei Metro System, serving residents and visitors of metropolitan Taipei with their daily commutes. Taipei Metro runs daily between 06:00 to 24:00, providing a safe, reliable, cordial and high-quality transportation service to passengers. Taipei Metro System currently comprises five main lines: Wenhu (Brown) Line, Tamsui-Xinyi (Red) Line, Songshan-Xindian



(Green) Line, Zhonghe-Xinlu (Orange) Line and Bannan (Blue) Line. These lines form the network of the Taipei Metro System and, in cooperation with other means of public transportation, have provided passengers an effective and convenient public transportation network.

- Taxi

Taxis are the most flexible way to get around and are cheaper compared to most places in the world. Taxis are all metered inside Taipei and it is easy to hail one in the street. In other areas, the driver may charge a flat fare depending on the destination. You can get a taxi from the help at any information center or convenience store. No tipping is necessary.



Flag fall TWD 70 for the first 1.25km	
Rate	By distance: TWD 5 every 200m By time: TWD 5 every 80 seconds when the speed is below 5km
Late Night Surcharge:	From 23:00 to 06:00, an extra TWD 20 is charged per trip.
Holiday Surcharge	An extra TWD 20 is added per trip.

http://www.numbeo.com/taxi-fare/city_result.jsp?country=iwan&city=ipei

- High Speed Rail

The Taiwan High Speed Rail (THSR), equivalent to SNCB Europe and JR Shinkasen, runs daily between 06:30 to 24:00. THSR links the north and south parts of Taiwan at a total length of 345 km within 90 minutes of travel time, which normally takes over 4 hours for the same journey by conventional rail. The ticket prices are reasonable, more expensive than that of regular trains (Taipei – Kaohsiung, 345 km, USD 50) but cheaper than airfares.



Rail

Taiwan Railways Administration (TRA) operates trains on two main lines – Western and Eastern daily from 06:00 to 24:00. Due to the growth in highway systems and increased competition from bus companies and airlines in recent years, TRA has changed to place an emphasis on short-distance commuter service and tourism. Additional dining cars are added to trains which run on remodeled scenic routes. More and more people travel by train in Taiwan these days.



V-3. Excursion Options

• Half-Day Trips LONGSHAN TEMPLE

(27 mins by taxi; 35 mins by Metro)

Situated in the city's oldest neighborhood, Wanhua, Longshan Temple is the spiritual heart of Taipei and a place where generations of locals have come to seek good fortune, health, and even guidance on who to marry.

TAIPEI MAOKONG GONDOLA

(20 mins by taxi; 50 mins by Metro)

For more great views, head to Maokong Mountain. The mountain's gondola service starts at the Taipei Zoo, the largest zoological collection in Asia. As an important tea growing area, it's also the place to learn tea tasting and appreciation. Because of its higher terrain, Maokong is also very famous for the night view.





• One-Day Trips

JIUFEN OLD STREET (45mins by taxi; 1.5 hrs by bus)

The small town was a relatively isolated village until the discovery of gold during the Japanese occupation in 1893; the area was quickly developed due to a gold rush. During World War II, the town housed a Japanese prisoner-of-war camp where captured Allied Force soldiers (mainly British) were forced to work in the gold mines. The town today exists mainly as a tourist destination remembering and celebrating Taiwanese history and culture.



TAIPEI PALACE MUSEUM (30 mins by taxi; 55 mins by Metro)

The Taipei Palace Museum has a permanent collection of over 677,687 pieces of ancient Chinese artifacts and artworks, making it one of the largest on earth. The collection encompasses over 8,000 years of Chinese history. Most of the precious pieces were collected by ancient Chinese emperors. The main categories include bronze, painting, jades, ceramics, calligraphy, ancient books, documents, curios and pottery. The museum houses

curios and several pride of its worldwide.



Jadeite Cabbage



Meat-shaped Stone

The museum houses treasured items that are the collection and famous

YANG MING MOUNTAIN NATIONAL PARK (35 mins by taxi; 3 hrs by Metro)

Yangming Mountain National Park is renowned for its unique volcanic features and diverse ecosystems. The Park is located in the subtropical zone, but its vegetation differs from that of other areas at similar latitudes because of post-volcanic activities and the northeast monsoon in winter. The area is bestowed with abundant hot spring resources. Many selections are available: public pools, individual pools, or spa in hotels. Hot spring outlets here are mostly sulfur springs. The temperature of the springs is in the range of 55°C (131°F) to 58°C (136°F).



SHILIN NIGHT MARKET (21 mins by taxi; 45 mins by Metro) Shilin Night Market is not only a popular night market for the locals, but also one of the must-visit tourist spots in Taiwan. It covers a large area, but is always jam-packed. Most of the shops are housed in the indoor enclosure; other shops and stalls can be seen along the streets. When one walks in the turning lanes and alleys, something unexpected would often be found. It is famed for a wide array of authentic Taiwan eateries and fashionable clothing.



YINGGE POTTERY STREET (40 mins by taxi; 1 hour by Metro)

Yingge is the largest center for ceramic production in Taiwan. The main attraction here is Yingge Old Street, a pedestrian shopping street specializing in ceramic arts, pottery, porcelain, and other related products in all price ranges. Some pottery stores also offer DIY activities. The Yingge Ceramics Museum is an eye-catching three-story building wrapped in glass and steel frames where exhibitions



are held to showcase various themes in ceramics art, development and techniques.

• Overnight Trips

TAROKO NATIONAL PARK (2-4 hrs from Taipei to Hualien by Railways)

Taroko National Park, a national treasure, situated in the eastern part of Taiwan, features dazzling gorges, and breathtaking nature wonders. When travelling on the Central Cross-Island Highway leading to the Park, magnificent Taroko Gorge and fast flowing Liwu River is a feast for your eyes. Undulating mountains, sonorous waterfalls, various plant and animal species, together with the indigenous Taroko people, create a unique and diverse ecosystem.





KENTING NATIONAL PARK

(1.5 hrs from Taipei to Zuoying by Taiwan High Speed Rail plus 2-hr bus)

Kenting National Park, the first founded national park in Taiwan, is situated at the island's most southerly tip, where you can see the Taiwan Strait on your left and the Pacific Ocean on your right. It is well-known for its rich landscapes, beautiful beaches, lush vegetation, abundant corals and reefs, and tropical climate with sunshine throughout the year. The diversified terrain



and tropical climate of Kenting have helped breed a rich and fertile vegetation ranging from upland to coast with a full variety of living species. Along the beaches and bays of the Park, adventurous and interesting water activities are available such as scuba diving, banana boat, water scooter, submarine, and coastal diving.

V-4. Aboriginal Culture

The aboriginal peoples of Taiwan have a deep and rich history of festivals and ceremonies. These momentous gatherings see tribes perform rituals for blessings and good luck, in which they sing and dance to ensure their group's unity. The aboriginal groups of Taiwan have been on the island for at least 15,000 years and number about half a million people. Each group has its own unique festivals where tribe members bestow blessings upon food, worship the gods, and commemorate ancestors. The rituals also serve as social settings for members to gather and celebrate their ways of life in nature.



The Harvest Festival is meant to show gratitude to their deity for the reaped crops.

V-5. Tea Culture

There are five main types of true tea. The least processed and rarest kind is white tea. Green tea is the second type. Green tea is steamed before drying, changing the leaves' flavor profile. Oolong is much more processed, but still maintains a delicate flavor. The fourth type of tea is the most common in the western world. Black tea is processed extensively, which results in a very dark red tea liquor and a heavy flavor. The final type of tea is very different from all others. The general term for this kind of tea is "post-fermented tea" but most of these belong to a large subcategory called pu'erh tea. It is steamed, rolled, and dried just like other green teas, but this is where the similarities end. After drying, pu'erh tea adds one final stage: fermentation and aging.

Tea is a part of life here, a staple, and available in every form - from cheap, refreshing bottles sold at convenience stores to the most expensive. It is at once a ceremonial art and a rigorous science. The most famous tea in Taiwan are Dongding tea, Wenshan Pouchong tea, Oriental Beauty (White Tip Oolong), Ali Mountain oolong, Taiwan Alpine (High Mountain Oolong), Sun Moon Lake Black, Mucha Iron Goddess, Sanshia Dragon Well, Longquan Tea.



Concluding Remarks

We look forwards to the opportunity to host the SAS2021 in Taiwan.

https://www.youtube.com/embed/RMEKGrrfdXM

(Bird-view Taiwan)

https://www.youtube.com/embed/TZlt_zozH1M

(Four seasons in Taiwan)

https://www.youtube.com/watch?v=ksrgvHruL60

(The Tea Culture of Taiwan)



Name	Title	Affiliation / research field	
Proposed Conference Chair & Co-chairs			
Shangjr Gwo	Director /	Director of National Synchrotron Radiation	
果尚志	Distinguished	Research Center (NSRRC); Department of Physics,	
	Professor	National Tsing Hua University (NTHU), Taiwan;	
		Nanomaterial physics; SERS applications	
Hsiung Chou	Professor	Department of Physics, National Sun Yat-Sen	
周雄		University (NSYSU); magnetics; hard condense	
		matters	
Sow-Hsin Chen	Academician	Department of Nuclear Science and Engineering,	
陳守信	Professor Emeritus	Massachusetts Institute of Technology (M.I.T);	
		Neutron scattering, soft matter	
Ming-Daw Tsai	Academician	Institute of Biological Chemistry, Academia Sinica	
蔡明道	Distinguished	(AS); Biophysics, protein sciences.	
	Professor		
Local Organizing Co	Local Organizing Committee		
Yu-Shan Huang	Doctor	Utilization Division, NSRRC; XPCS/SAXS/coherent	
黄玉山		scattering and imaging/ instrumentation	
Wei-Tsung Chuang	Doctor	Research Division, NSRRC/ polymer and	
莊偉綜		composite; bio-mimic materials	
Jason Stewart Gardner	Doctor	Research Division, NSRRC/ neutron scattering,	
高佳山		magnetic materials	
U-Ser Jeng	Doctor	Utilization Division, NSRRC/ BioSAXS,	
鄭有舜		polymers/SAXS instrumentation	
Shang-Te Hsu	Doctor	Institute of Biological Chemistry, Academia Sinica	
徐尚德		(AS)/ BioSAXS, protein folding-unfolding	
Meng-Chiao Ho	Doctor	Institute of Biological Chemistry, AS/ BioSAXS,	
何孟樵		protein structures	
Kung-Hwa Wei	Chair Professor/ Dean,	Department of Materials Science and Engineering,	
韋光華	College of Engineering	National Chiao Tung University (NCTU)/ polymer	
		solar cells, thin films	
Rong-Ming Ho	Distinguished	Department of Chemical Engineering, NTHU/	
何榮銘	Professor	polymer and composites	
Hsin-Lung Chen	Distinguished	Department of Chemical Engineering, NTHU/	
陳信龍	Professor	polymer; nucleon, DNA	

Appendix: List of the local committee of the SAS 2021

An-Chung Su	Professor	Department of Chemical Engineering, NTHU/
蘇安仲		polymers; composite; colloidal solutions
Tsang-Lang Lin	Professor	Engineering and System Science, NTHU/ lipid
林滄浪		micells, DNA; colloidal solutions
Ya-Sen Sun	Professor	Department of Chemical and Materials
孫亞賢		Engineering, National Central University (NCU)/
		polymer/ nanoparticles
Hsi-Mei Lai	Professor	Department of Agricultural Chemistry, National
賴喜美		Taiwan University (NTU)/ starch, food science
Wei-Fang Su	Distinguished	Department of Materials Science and Engineering,
林唯芳	Professor	NTU/ polymer and polymer solar cells
Shih-Huang Tung	Professor	Institute of Polymer Science and Engineering,
童世煌		NTU/ lipid micells, polymers; colloidal solutions,
		gels
Jrjeng Ruan	Professor	Department of Materials Science and Engineering,
阮至正		National Cheng Kung University (NCKU)/
		polymers
Chieh-Tsung Lo	Professor	Department of Chemical Engineering, NCKU/
羅介聰		polymers
Chi Wang	Professor	Department of Chemical Engineering, NCKU/
王紀		polymers, fibers
Shu-Ying Wang	Professor	Department of Microbiology and Immunology,
王淑鶯		NCKU/ BioSAXS, protein structures
Cheng-Si Tsao	Doctor	Institute of Nuclear Energy Research, Atomic
曹正熙		Energy Council, Executive Yuan (INER)/ metal
		and alloy, polymer solar cells, energy materials
Jauyn Grace Lin	Doctor	Center for Condensed Matter Sciences, National
林昭吟		Taiwan University (CCMS)/ neutron scattering,
		magnetic thin films
Yeo-Wan Chiang	Professor	Department of Materials and Optoelectronic
蔣西旺		Science, NSYSU/ polymers and composites;
		photonic crystals