





Joint conference

International Dyke Conference (IDC 8)-Large Igneous Provinces (LIPs 8)-Rodinia 2023 Conference

JOIN US IN A GEOSCIENCE PARADISE: A VOYAGE THROUGH EARTH HISTORY IN THE KINGDOM OF MOROCCO

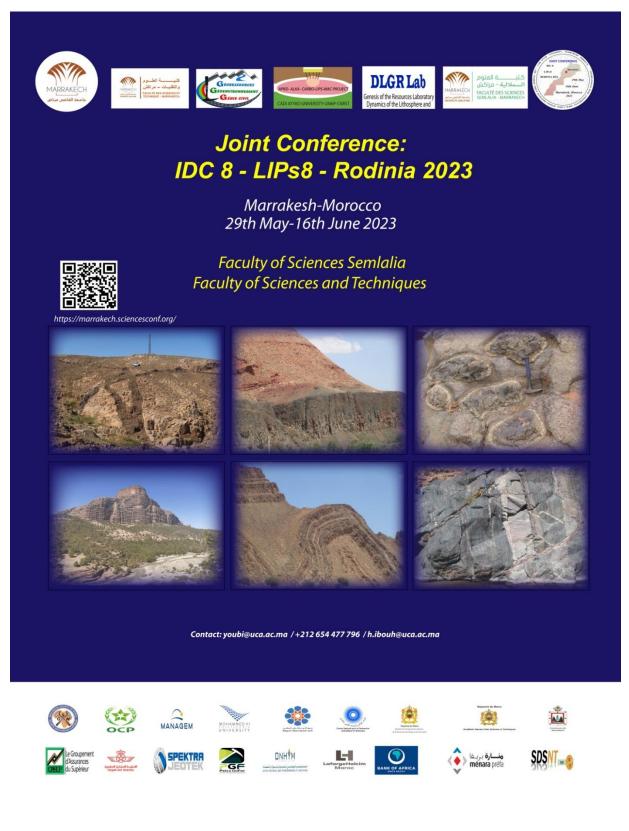
Key Dates and Location: 29th May-16th June 2023 @Marrakesh (Morocco)



Simemoroccan geological outcrops, from upper left to lower right: 1-Dispersed pillow lavas associated with hyaloclastites at the bottom of the Intermediate Basalt Formation of the 201 Ma Central Atlantic Magmatic Province (CAMP, High-Atlas, Morocco, Photo by N. YOUBI). 2- Agadir Melloul Dyke_South of morocco1_(Ph_H. Admou). 3- Mio_Pliocene conglomérate outcroup_Central High Atlas –Cathedrale (Ph_H_IBOUH). 4- Taria outcroup_Central_High_Atlas (Ph_H_Ibouh)

2nd CIRCULAR

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Joint International Dyke Conference (IDC 8)-Large Igneous Provinces (LIPs 8)-Rodinia 2023 Conference

International Dyke Conference (IDC 8)

The Eighth International Dyke Conference (IDC8) will concentrate on mafic dyke swarms and related igneous associations, e.g., sills, kimberlites, syenites, carbonatites, volcanics, etc., with a special emphasis on paleogeographic reconstruction based on geological comparison and paleomagnetic studies. The IDC8 continues the every-five-year tradition started in Toronto, Canada in 1985 by Prof. Henry C. Halls (University of Toronto). Subsequent IDCs were held in Australia (1990), Israel (1995), South Africa (2001), Finland (2006), India (2010), and China (2016).

Large Igneous Provinces (LIPs 8)

The Large Igneous Provinces conference series was launched in 2007 in Novosibirsk, Siberia, Russia by Prof. Alexander Borisenko and colleagues, and continued in 2009 – Novosibirsk, Russia; 2011 – Irkutsk, Russia; 2013 - Hanoi, Vietnam; 2015 – Irkutsk, Russia; 2017 - Chengdu, China- Tomsk, Russia; 2019. The early conferences (2007-2015) were focused on the LIP record of Asia, but the Tomsk and the current focus is more global. The Eighth LIPs conference will again cover all aspects of this rapidly expanding field.

Rodinia 2023

The Rodinia conference series began in the form of Tectonics Special Research Centre symposia (1998-2005) that morphed into dedicated Rodinia conferences in Edinburgh, Scotland (2009); Moscow, Russia (2013); and Townsville, Australia (2017). The planned Rodinia meeting herein will continue this tradition and join forces with the other conference series noted above.

West African Craton's magmatic and tectonic legacy, 2 Ga to present

The last decade has revealed West African craton as a key witness to long-term magmatic and tectonic processes, occupying important locations within ancient supercontinents. Consolidated in the Eburnean tectonic event of ca. 2.0 Ga, the craton was long thought to be devoid of significant igneous and tectonic activity until Pan-African orogenesis 1500 million years later. However, numerous ca. 1.7-1.4 Ga mafic dyke swarms have now been dated by U-Pb on zircon and baddeleyite, both in northern and southern regions of the craton; these swarms may be related to protracted breakup of the Nuna supercontinent. In addition, craton-wide ca. 0.9-Ga mafic magmatism could be related to the Rodinia supercontinent cycle. Lacking direct records of late Mesoproterozoic ("Grenvillian") orogenesis, West African craton has typically been relegated to the outer periphery of Rodinia reconstructions, but recent documentation of Mesoproterozoic detrital zircons within autochthonous cover strata suggests some proximity to Rodinia-forming orogens.

Within the post-Rodinia era, West African craton's margins were all reworked by the ca. 0.6-0.5-Ga Pan-African orogeny, coeval with multiple episodes of glaciation and the widespread Ouarzazate (Peri-Lapetus Magmatic Province) LIP. The Pan-African interval can be viewed either as a culmination of Pannotia supercontinent amalgamation, or a subsidiary step toward eventual Pangea assembly at ca. 0.3 Ga. Northern regions of the craton are directly affected by that Hercynian orogenesis. Breakup of Pangea is spectacularly documented by Central Atlantic Magmatic Province (CAMP) magmatism and rift-related sedimentation at ca. 0.2 Ga. At present, post-Alpine subduction has migrated westward to the Strait of Gibraltar, perhaps initiating subduction within the Atlantic realm that will close interior oceans on the way to to the next future supercontinent. "Super Pangea" at the next 2.5 Ga

In celebration of all these diverse geological records, spectacular rock exposure, fascinating culture, and friendly people, we invite you to join us in the "Geological Paradise" of Morocco in 2023!

When?

Meeting: June 5-9, 2023 Pre-conference field trip: May 29- June 3, 2023 Meeting: June 5-9, 2023 Mid- conference field trip: June 7, 2023 (two choices B) Post-conference field trip: June 10-16, 2023.

Where ?

Cadi Ayyad University Conferences Center (Centre de Conférences de l'Université Cadi Ayyad)



Who?

The Cadi Ayyad University of Marrakech in partnership with Moroccan Universities (UM6P Benguerir; Mohmed Premier University, Oujda and Chouaib Doukkali University ELjadida) & the Association "Society of Development of Science and Novel Technologies" will organize the conference

Under the auspices of:

The Geological Society of Africa (GSAf) The Hassan II Academy of Sciences and Technology The Ministry of Higher Education, Scientific Research and Innovation The Ministry of Energy Transition and Sustainable Development The National Centre for Scientific Research and Techniques



Anyone who is willing to help organizing the Joint Meeting Conference IDC8-LIPs8- Rodinia 2023, please contact: <u>youbi@uca.ac.ma</u> and/ or <u>h.ibouh@uca.ac.ma</u>

Conference Language

The official language of the conference will be English. Scale: We are expecting at the most 600 participants including ~120 foreigners.

Outline of the Program

Second Circular:28 February 2023Abstract and on-line registration opens:15 February 2023

Early registration due:	30April 2023			
Close of abstract submission:	30 April 2023			
Conference:	5-9 June 2023			
4 June 2023:	On-site registration (3-6 PM)/ Cadi Ayyad			
	University Conferences Center			
5-9 June 2023:	On-site registration (8:30 AM–6PM)			
5 June 2023:	Welcome Reception (6 PM – 8:30 PM)			
5-9 June 2023:	Meetings (8:30 AM – 5:30 PM)			
9 June 2023:	Celebration in Honor of Prof. Henry HALLS,			
	Prof. Hervé BERTRAND, Prof. Ahmed EL			
	HASSANI, Prof. El Hassane CHELLAI, Prof.			
	Ahmed CHALOUAN (6 – 9 PM).			

Tentative Pre-, Mid-, and Post- Conference Field Trips: 29 May- 3 June , 7 June & 10-16 June, 2023

-Pre- Conference Field Trip A (6 days): 29 May- 3 June 2023, Trip to the Variscan Belt of Jebilet and Rehamna (Morocco): for more information <u>https://marrakech.sciencesconf.org/</u> Field Leaders: Prof. El Mostafa Mouguina, Prof. Nasrrddine Youbi et al., **Download flyer A:**

https://marrakech.sciencesconf.org/data/pages/Final_Jbilets_Rehamna_Pre_Conference_Field_Trip_A ____6_days_29_May_3_June_2025.pdf

-Mid- Conference Field Trip B (1 day): 7 June 2023, Trip to the Central Atlantic Magmatic Province (CAMP) of the High Atlas. Field Leaders: Prof. Nasrrddine Youbi & Prof. El Hassane Chellai. Download flyer B:

https://marrakech.sciencesconf.org/data/pages/Final_High_Atlas_Camp_Mid_Conference_Field_Trip _B_1_day_7_June_2024.pdf

Post- Conference Field Trip C (7 days): 10-16 June, 2023, Trip to the Anti-Atlas Belt. Field Leaders: Prof. Hassan Admou, Prof. Abderrahmane Soulaimani & Prof. Nasrrddine Youbi.
Download flyer B:

https://marrakech.sciencesconf.org/data/pages/Final_Anti_Atlas_Post_Conference_Field_Trip _____C_7_days_10_16_June_2027.pdf

The three filed trips guide books (A, B and C) will be available on-line before the conference for all the participants that payed their registration and participation in the conference.

Call for themes/topics

Here are the proposed topics for the Joint Conference of Marrakesh Morocco 2023 (JC2M-2023): IDC8-LIPs8-Rodinia 2023:

1) Supercontinent Geodynamics, Plumes, LIPs, and Rifting

Plume tectonics is in some ways as important as plate tectonics in the overall geodynamic history of the Earth. Plumes are interpreted as the source of many (majority?) of LIPs, and

plumes plus LIPs are associated with triple junction rifting and the breakup (or attempted breakup) of continents to form new oceans.

2) Pre-Rodinia Reconstructions

Some of the most important geodynamical implications of supercontinents require integrated histories of several transitions do they introvert, extrovert, orthovert, or alternate between end-members? Is there a quasi-regular super-continental cycle, and if so, far back in Earth history does it extend? The past decade has witnessed numerous forays into pre-Rodinian paleogeography, with many proposed reconstructions of Neoarchean-Paleoproterozoic super-craton assemblages, or even a full-fledged Kenorland supercontinent, rearranging into a Paleo-Mesoproterozoic Nuna (a.k.a. Columbia) amalgamation. Is the Nuna-Rodinia transition a large-scale reorganization of cratons culminating in assembly via a late Mesoproterozoic super-orogen, or a mere reshuffling coinciding with a "boring" billion years of environmental and evolutionary stability?

3) Rodinia to Pangea.

The most recent full super-continental cycle culminated in a Pangea assemblage that was solved to first order over a century ago, yet the complete history "out of Rodinia" still contains geodynamic conundrums and paleogeographic parleys. Was there an intermediate Pannotia supercontinent, or do Ediacaran-Cambrian proxy records of super-continentality instead portray the Pan-African collisions leading to mega-continent Gondwana-Land as the first stage in a two-step process leading toward Pangea? What do the Neoproterozoic-Paleozoic LIPs tell us about geodynamics through a full cycle of super-continental transition?

4) LIPs and their plumbing systems (including dykes)

Flood basalts are fed by a plumbing system of dykes (giant radiating and circumferential), sills and layered intrusions, potentially originating from a magmatic underplate, which can in turn be linked to an underlying mantle plume or perhaps a zone of delamination.

5) Supercontinents, LIPs, and Ore Deposits

LIPs are associated with a range of ore deposits types, including magmatic sulfide deposits, hydrothermal deposits, laterite ores, and indirectly linked to some orogenic deposits (through the linking of ocean-opening, associated with LIPs, and corresponding transpression/compression on other plate boundaries) More broadly, plate tectonic processes have their own associated portfolio of ore deposit types.

6) Supercontinents, LIPs, and Climat Change

LIPs are now recognized to be a main driver of rapid climatic changes including both global warming, global cooling, anoxia events, acid rain and ocean acidification, and also mass extinction events. Supercontinent assembly and dispersal are also associated with transitions in climate (generally slower). Integrated study of Supercontinent history and LIPs (plus bolide impact and biological evolution) should be able to explain much of the climatic history of the Earth

7) Planetary LIPs

There is an increasing role for applying the LIPs (and dyke swarm) paradigm to other terrestrial planets, notably on Venus and Mars. These planetary bodies and also the Moon and Mercury lack plate tectonics. These are one-plate planets and their magmatic histories

are by definition intraplate. The larger intraplate events on these bodies have extensive dyke swarms and associated flood basalts that appear to be linked to mantle plumes/diapirs and are comparable in many ways to LIP events on Earth.

8) Dykes in collisional/subduction settings

The focus in mafic dyke swarm studies over the past couple of decades has mostly been on intraplate events (including those of LIP scale). However, it is time to pay attention to the dyke swarms (generally of smaller scale) that are part of the magma feeder system in collisional and subduction settings. A renewed focus on this class of dyke swarms will undoubtedly lead to new insights into the plumbing system of collisional / subduction magmatism.

9) Sedimentary and igneous phosphate Deposits: Formation and Exploration.

Phosphate rocks are a vital resource for world food supply and security. They are the primary raw material for phosphoric acid and fertilizers used in agriculture, and are increasingly considered to be a potential source of rare earth elements. Phosphate rocks occur either as sedimentary deposits or igneous ores associated with alkaline rocks. In both cases, the genesis of high-grade phosphate rocks results from complex concentration mechanisms involving several (bio)geochemical processes. Some of these ore-forming processes remain poorly understood and subject to scientific debate.

10) Alkaline Rocks and Carbonatites : Classification, Sources, Evolution, Emplacement, and Exploration.

Alkaline-carbonatite complexes are abundant in the world and there are many unanswered questions about the formation of their associated ore deposits and on how to best to explore for them. Many carbonatites are linked both spatially and temporally with large igneous provinces (LIPs), which produce significant amounts of energy and metals that can either drive or contribute to a variety of metallogenic systems including Rare Metals (Li, Be, Ti, Zr, Nb, Ta, Th and U), REE and other ore deposits. The main goals of this session is to expose the results of classification, sources, evolution, emplacement, and exploration of alkaline rocks and carbonatite and associated Ore Deposits.

First and last name	Institution and country	RG and Scopus Index		
Yvette KUIPER	Colorado School of Mines, USA). The talk will be given remotely	RG_h_ index 13, Scopus h_index 11		
Maria OVTCHAROVA	University of Geneva, Switzerland	RG_h_ index 79, Scopus h_index 73		
Julian PEARCE	Cardiff University, United Kingdom	h_ index 79, Scopus h_index 73		
David EVANS	Yale University, USA	h_ index 53, Scopus h_index 128		
Nicolas FLAMENT	University of Wollongong, Australia	h_index 30, Scopus h_index		
Zheng-Xiang LI	Curtin University, Australia	h_index 94, Scopus h_index 93		
Andrey BEKKER	University of California Riverside, USA & University of Johannesburg, South Africa	h_index 94, Scopus h_index 61		
James W. HEAD	Brown University, USA	h_Index 129, Scopus h_index 108		

Keynote Speakers

Shuan-Hong ZHANG	Chinese Academy of Geological	h_Index 39, Scopus h_index 34
	Science, China	
Nasrrddine Youbi	Cadi Ayyad University, Morocco	h_Index 36, Scopus h_index 32

Call for Abstracts

Visit https://marrakech.sciencesconf.org/

Abstracts should be submitted by uploading on the Conference website as attached files in DOC or DOCX format or sending it to <u>youbi@uca.ac.ma</u>

Please name the attached file by the name of the first author (for example Smith.doc). The abstract should be no longer than two A4 pages including tables, illustrations, and references with all-around margins of 2 cm. The first author can submit only two papers while co-authorship in other papers is not restricted. After evaluation, the Organizing Committee keeps the right to reject the abstracts out of the topic of the conference.

Template:

-The text should be prepared using Microsoft Word (version 2003 and newer):

-Title: Times New Roman bold, 14, single-spaced and centered.

-Authors and address: Times New Roman, 10, single-spaced.

-Main text: Times New Roman, 11, single-spaced, wide justified, not paginated, 1 cm indented.

-Figures should be saved as JPG or TIF files at a high-resolution dpi and included directly in the text (position in the center).

-Figure captions (Times New Roman, 10) should be included below the figure.

-Figures, tables, and references should be referred to in parenthesis: (Fig.1), (Table 2), (Smith et al. 2005).

-References should be separated by a single line from the main text, alphabetically ordered, and typed in Times New Roman italic, 10.

The Conference Committee

The Honorary Chairs, who are in retirement who will be honored in this congress are:

Prof. Henry C., HALLS Prof. Hervé, BERTRAND Prof. Ahmed, EL HASSANI Prof. El Hassane, CHELLAI	(University of Toronto, Toronto) (University of Lyon, France) (Academy Hassan II of Science & Technology) (Cadi Ayyad University)
Prof. El Hassane, CHELLAI	(Cadi Ayyad University)
Prof. Ahmed CHALOUAN	(Mohamed V University)

Local Organizing Committee (Cadi Ayyad University, Marrakesh, Morocco)

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	Morocco)
Hassan IBOUH,	(Co-Leader and treasurer) (Faculty of Science & Techniques, Cadi Ayyad
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	Morocco) (web site and outreach communication)
El Hassane CHELLAI,	(Faculty of Sciences-Semlalia, Cadi Ayyad University, Marrakesh, Morocco)
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Hind, EL HAIBI,	(Faculty of Sciences-Semlalia, Cadi Ayyad University, Marrakesh, Morocco

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	Tomsk, Russia)					
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DAVIES Joshua	(GeoTop, Université du Québec à Montréal, Canada)					
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FLAMENT Nicolas	(University of Wollongong, Australia) The talk will be given remotely					
GÄRTNER Andreas	(Senckenberg Naturhistorische Sammlungen Dresden, Germany)					
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HAMIMI Zakaria	(Benha University, Egypt).					
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HUSTON David	(Geosciences Australia)					
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JELSMA, Hielke	(Exploration Business and Strategic Planning, Anglo American plc,					
	Johannesburg, South Africa)					
JESSELL, Mark	(The University of Western Australia, Australia)					
KHALAF Ezz El-din Abdel Hakim						
KUIPER Yvette	(Colorado School of Mines, USA) The talk will be given remotely					
LI, Zheng Xiang	(Curtin University, Australia)					
LINNEMANN Ulf	(Senckenberg Naturhistorische Sammlungen Dresden, Germany)					
LO Khalidou	(University of Nouakchott Al Aasriya, Mauritania).					
MAACHA Lhou	(Managem, Morocco)					
MADEIRA José	(Universidade de Lisboa, Portugal).					
MARZOLI Andrea	(Università degli Studi di Padova, Italy).					
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Call for sponsorship

Sponsors are welcome. There will be an exhibition area during the four-day meeting. Advertisement will be also available inside the proceedings of the conference, as well as the field guide books, the abstracts, and the program leaflets.

The sponsors will receive some or all of the below privileges:

-Full conference registration including all social events.

-Company name and logo on the conference homepage, as well as link to your company homepage.

-List your company name and logo in the printed conference brochure as supporter (Logo must be provided by patron).

-One-page company advertisement inserting into the conference bag (to be provided by patron and approved by conference organizer).

-One full color page advertisement in the printed conference abstract book, field trip guide book, and/or other proceedings.

-One free demonstration desk in the conference venue (including one table, two chairs, one 220V electric power supply with a tripe plug).

-Conference bag with advertisement on it.

-Flash disk with advertisement on it.

-For more information, please contact the conference leader or co-leader (<u>youbi@uca.ac.ma</u>), <u>h.ibouh@uca.ac.ma</u>).

Publication of Meeting Contributions

Following the tradition of the previous conference series (IDCs, LIPs, and Rodinia) we are planning to publish an edited book focused on paleogeographic reconstructions based on the dyke record and its paleomagnetism and links to large igneous provinces. Details on paper submission will be provided in the Second Circular.

Because in addition to reconstructions there will be lots of other topics from the conference, we are also considering publishing a second special issue after the conference. This will depend on the wishes of the participants.

In addition, it is also possible to publish the abstracts to the meeting in a peer-reviewed journal

Best Oral/Post Presentation Award for young scientists

Follow the IDCs tradition, the conference committee will award best oral/post presentations of the meeting for young scientists (aged 40 or younger).

Celebration in Honor of:

On 9th June, the IDC8, LIPs8, and Rodinia 2023 Conference will present a celebration party in honor of the:

Prof. Henry C HALLS, Prof. Hervé BERTRAND, Prof. Ahmed EL HASSANI, Prof. El Hassane CHELLAI, Prof. Ahmed CHALOUAN.

Contacts and Correspondence for scientific information:

- -Nasrrddine YOUBI, ((youbi@uca.ac.ma) Director of DLGR Lab Cadi Ayyad University, Faculty of Sciences-Semlalia, Department of Geology, P.O. Box 2390, Marrakech 40000, Morocco. Phone : + 212 - (524) 43 46 49. Extension 516. GSM (Office): + 212 (0654) 477 796. Fax: + 212- (524) - 43 67 69.
- -Hassan Ibouh, (<u>h.ibouh@uca.ac.ma</u>) L3G Lab, Cadi Ayyad University, Faculty of Sciences & Technoloques, Guéliz Bd. A. Khattabi, BP 549, Marrakech 40 000 Tel.: + 212 (524) 43 31 63 (poste 424) Fax: + 212 (524) 43 31 70.
- -Richard E., ERNST, (<u>Richard.Ernst@Carleton.ca</u>), Tel: 1-613-295-7955) Scientist in Residence, Dept. of Earth Sciences, Carleton University, Herzberg Building 1125 Colonel By Drive, Ottawa, Canada K1S 5B6

Registration, filed trip and informations about the conference: <u>https://marrakech.sciencesconf.org/</u>,

Payment by bank transfer to:

Name :	Association "Society (ASSOSDS-NT)	of	Development	of	Science	andNovel	Technologies"
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Address:	SWIFT: CDMAMAM Faculté des Sciences-S	-	alia, 40025 Marr	akec	h PPAL,	Morocco	

Conference participation fees:

	Payment received until April 30, 2023	Payment received until May 15, 2023	Payment received until May 28, 2023
Industrial Participant	US\$ 1000	US\$ 1050	US\$ 1100
Regular Participant	US\$ 450	US\$ 500	US\$ 550
Student Participant (up to PhD. Level)	US\$ 225	US\$ 250	US\$ 275

A 40% discount will be offered for remote participants, (so the online participants can payed 60% of the registration fees)

This covers

- 1. Attendance at the conference
- 2. Final program
- 3- Abstract book online
- 3. Coffee/tea breaks on June 5-9, 2023
- 4. Welcome Reception on June. 5, 2023
- 5. Lunches on June 5-9, 2023

- 6. Conference Banquet on June 9, 2023
- 7. Conference administration

Fees for field trip: <u>https://marrakech.sciencesconf.org/resource/page/id/34</u> including travel, meals, and hotel during field trip for A and C.

Conference Venue: The scientific sessions of the Joint Conference of Marrakech (JCM_2023) will take place at the Conference Center of the Cad Ayyad University near the *ESAV* (*Ecole supérieure des Arts visuels*): <u>https://goo.gl/maps/DLZ3uW4ZLfS23mu56</u>

Sessions will take place in a meeting room equipped with video projectors that can link to PC. The online participations will be available (URL for on line participation will occurred 2 days before de beginning of the conference); A dedicated area will be provided for poster sessions.

We hope that the health conditions in the Republic of China will allow the Moroccan authorities to unblock the situation and allow the Chinese researchers to return to Morocco without any restrictions.



Hotel reservation

More than 1200 hotels are located in the city of Marrakech, and several authentic accommodation booking platforms operate on the web, the most popular are: <u>https://www.booking.com</u> <u>https://www.trivago.fr</u> <u>https://fr.hotels.com/de818964/hotels-marrakech-maroc/</u> <u>https://www.tripadvisor.com</u> <u>https://www.alksar.com/cartes-plans-de-marrakech/</u>

Passport and Visa

The participants native of the China, European Union, North America, Australia, Russia, numerous African and Asian countries do not need a visa to enter in Morocco (more than 66 countries). For the complete list of exempt countries, visit Morocco's The Minister of Foreign Affairs, African Cooperation and Moroccan Expatriates: <u>https://www.diplomatie.ma/en</u>

Letter of Invitation

Requests for formal letters of invitation to attend the conference should be directed to the Organizing Committee (youbi@uca.ac.ma or h.ibouh@uca.ac.ma). This invitation is intended to assist participants in travel and visa arrangements and does not imply financial support. Please request invitation letters only after the registration.

Currency Exchange:

The Moroccan Dirham is the currency of Morocco. Our currency rankings show that the most popular Moroccan Dirham exchange rate is the MAD to EUR rate. The currency code for Dirhams is MAD https://www.xe.com/currencyconverter/convert/?Amount=1&From=USD&To=MAD .

In Morocco, only Dirhams is used. However, exchange centers can be found at airports, most hotels and large shopping centers. Visa, Master, American Express, Diners Club, and JCB are accepted in some department stores and hotels. But it might be difficult to draw cash with credit cards. The Bank of Morocco and most hotels can cash traveler cheques issued by any foreign bank or financial institution. Participants will need to show a passport.

Transportation

Taxis will be the best way to travel inside Marrakesh. This is available from the international airport to the hotel and some key cultural treasures such as the Jamaa el Fna, that is a square and market place in Marrakesh's old medina quarter, the Koutoubia Mosque, the Saadian Tombs, Menara Garden, Agdal Garden, Palmerian, Bahia Palace, Majorelle Garden, etc. , forme moer information visit the site: https://www.getyourguide.fr/marrakech-1208/

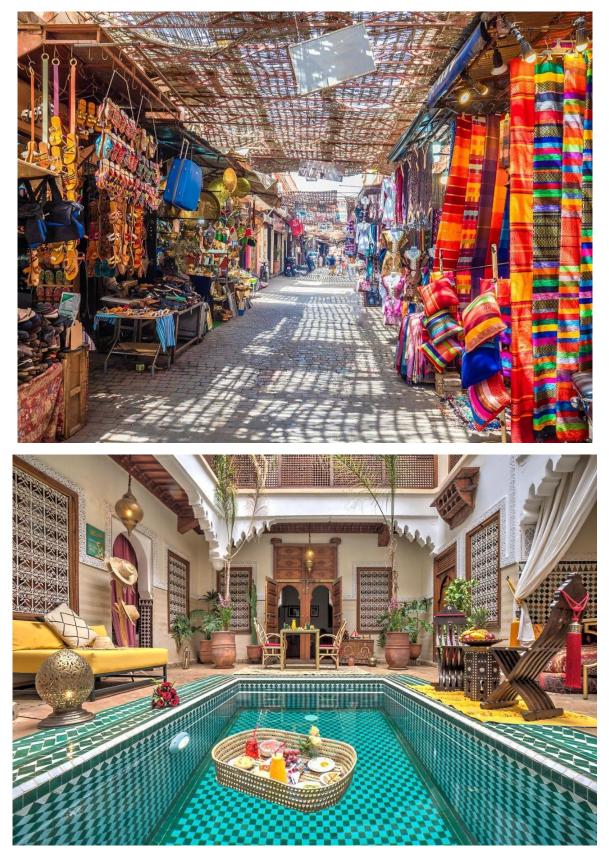
About Marrakesh

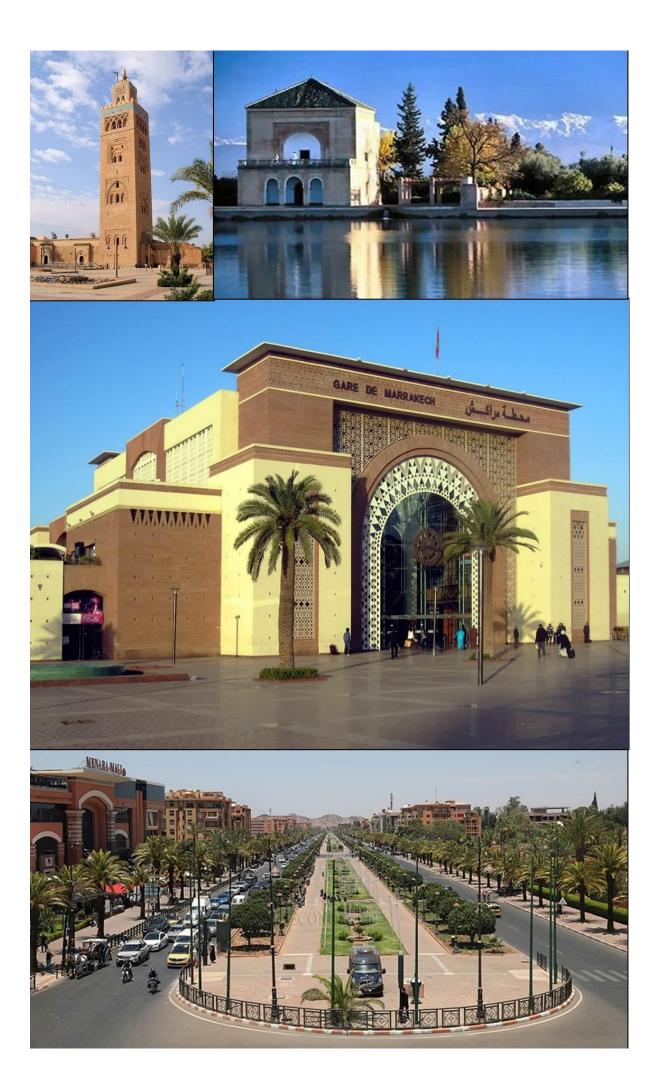
Marrakesh (also known by the French spelling Marrakech (/məˈrækɛʃ/ or /ˌmærəˈkɛʃ/;[4] Arabic: مراكش, Murrākuš; Berber: Meṛṛakec, ${}_{\circ}$ C ${}_{\circ}$ C ${}_{\circ}$ C ${}_{\circ}$ C) is a major city of the Kingdom of Morocco. It is the fourth largest city in the country, after Casablanca, Fes and Tangier. It is the capital city of the mid-southwestern region of Marrakesh-Safi. Located to the north of the foothills of the snow-capped Atlas Mountains, Marrakesh is located 580 km (360 mi) southwest of Tangier, 327 km (203 mi) southwest of the Moroccan capital of Rabat, 239 km (149 mi) south of Casablanca, and 246 km (153 mi) northeast of Agadir.

Marrakesh is possibly the most important of Morocco's four former imperial cities (cities that were built by Moroccan empires). The region has been inhabited by Berber farmers since Neolithic times, but the actual city was founded in 1062 by Abu Bakr ibn Umar, chieftain and cousin of Almoravid King Yusuf ibn Tashfin. In the 12th century, the Almoravids built many madrasas (Koranic schools) and mosques in Marrakesh that bear Andalusian influences. The red walls of the city, built by Ali ibn Yusuf in 1122–1123, and various buildings constructed in red sandstone during this period, have given the city the nickname of the "Red City" or "Ochre City". Marrakesh grew rapidly and established itself as a cultural, religious, and trading center for the Maghreb and sub-Saharan Africa; Jemaa el-Fnaa is the busiest square in Africa.

After a period of decline, the city was surpassed by Fes, but in the early 16th century, Marrakesh again became the capital of the Kingdom. The city regained its preeminence under wealthy Saadian sultans Abu Abdallah al-Qaim and Ahmad al-Mansur, who embellished the city with sumptuous palaces such as the El Badi Palace (1578) and restored many ruined

monuments. Beginning in the 17th century, the city became popular among Sufi pilgrims for Morocco's seven patron saints, who are entombed here.







Like many Moroccan cities, Marrakesh comprises an old fortified city packed with vendors and their stalls (the medina), bordered by modern neighborhoods, the most prominent of which is Gueliz. Today it is one of the busiest cities in Africa and serves as a major economic center and tourist destination. Marrakesh has the largest traditional market (souk) in Morocco, with some 18 souks selling wares ranging from traditional Berber carpets to modern consumer electronics. Crafts employ a significant percentage of the population, who primarily sell their products to tourists.

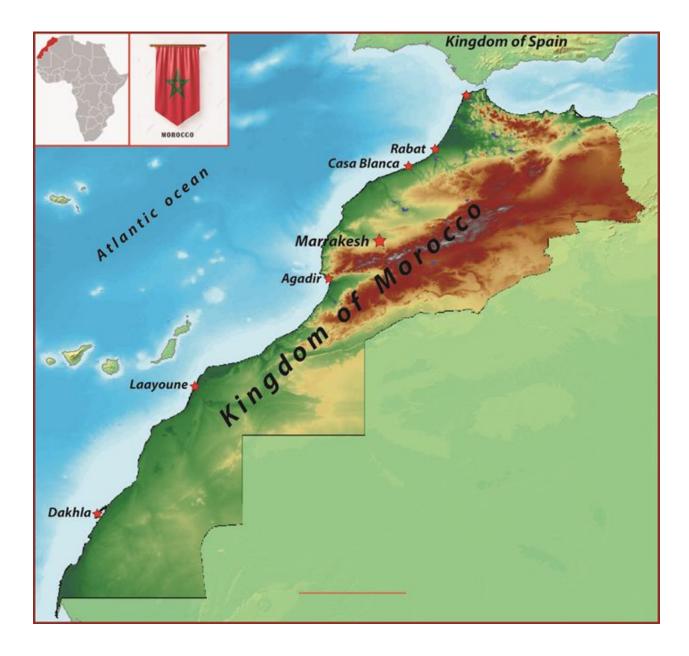
Marrakesh is served by Menara International Airport and the Marrakesh railway station, which connects the city to Casablanca and northern Morocco. Marrakesh has several universities and schools, including Cadi Ayyad University. A number of Moroccan football clubs are located here, including Najm de Marrakech, KAC Marrakech, Mouloudia de Marrakech and Chez Ali Club de Marrakech. The Marrakesh Street Circuit hosts the World Touring Car Championship, Auto GP and FIA Formula Two Championship races.



About Morocco

Morocco; Arabic: المغرب al-Maghrib; French: Maroc), officially the Kingdom of Morocco, is a country in the Maghreb region of North Africa. Geographically, Morocco is characterized by a rugged mountainous interior and large portions of desert. It is one of only three countries (with Spain and France) to have both Atlantic and Mediterranean coastlines. The Arabic name al-Mamlakah al-Maghribiyah (Arabic: المغربة المغربية , meaning "The Western Kingdom") and Al-Maghrib (Arabic: المغرب, meaning "The West") are commonly used as alternate names.

Morocco has a population of over 38 million and an area of 710,850 km². Its political capital is Rabat. The largest city is Casablanca. Other major cities include Marrakesh, Tangier, Tetouan, Salé, Fes, Agadir, Meknes, Oujda, Kenitra, and Nador. A historically prominent regional power, Morocco has a history of independence not shared by its neighbours. Its distinct culture is a blend of Arab, Andalous, Berber, African, and European influences.



Morocco is a constitutional monarchy with an elected parliament. Executive power is exercised by the government, while legislative power is vested in both the government and the two chambers of parliament, the Assembly of Representatives and the Assembly of Councilors.

Morocco's official languages are Arabic and Berber. Moroccan Arabic, referred to as Darija, and French are also widely spoken. Morocco is an influential member of the Arab League and

a part of the Union of Africa and Union for the Mediterranean. It has the sixth-largest economy in Africa.