7th IAS International Summer School of Sedimentology 2018
21-28 October 2018

"Processes, stratal architecture and controlling factors of continental to deep-marine systems at the foot of the Andes"

Figure 1. View of Jurassic deltaic and fluvial deposits in the southern Neuquén Basin. Interactions between river and marine processes, stratal anatomy, and controls at different scales can be investigated in these successions.

The **7th IAS International Summer School of Sedimentology 2018** for PhD students will be held in Zapala, Argentina, and will include field excursions to the worldwide renown outcrops of the Neuquén Basin. The theme of this Summer School will focus on "Processes, stratal architecture and controlling factors of continental to deep-marine systems at the foot of the Andes". Three days of lecturers alternating with three days of field activities are planned. Lecturers will address the latest advances in depositional processes and controls on deep-marine, shallow-marine and continental settings. Jurassic and Lower Cretaceous siliciclastic and carbonate strata of the Neuquén Basin will be used as case studies. The Neuquén Basin, the most extensively studied petroleum basin in Argentina, has been used for fieldtrips and geoscientists training courses for decades. It provides an excellent opportunity to observe geology in the field and to experience superb outcrops along the Andean Fold and Thrust Belt. Zapala, situated in the centre of the basin, is located approximately 180 km west from the Neuquén Airport and represents a northern gateway to the scenic regions of western Patagonia. The meeting point for participants will be at the Neuquén Airport, which can be reached by direct airplane connections from the capitol Buenos Aires and also from Santiago, Chile, as well as by flights arriving from Cordoba, Mendoza and Comodoro Rivadavia.

Topics to be addressed:

Recent advances in process sedimentology have demonstrated the need to better record and understand depositional facies in a wide range of depositional environments, as well as the need to improve our understanding of how depositional signals are propagated at basin scale over geologically short periods of time. The core goal of this Summer School will be

to provide the students lectures on recent topics regarding depositional processes and environments, as well as the governing controls that can be expected in different siliciclastic and carbonate systems (from deep marine to continental in different geodynamic settings (e.g., early post-rift, late post-rift, foreland). The students will then apply these concepts in the field on outcrops to analyse the stratigraphic architecture of deep-marine, shallow-marine, and continental deposits. Selected examples will be explored at different scales, from high-frequency cycles, to system-scale architectural patterns (i.e., seismic scale), and eventually to large-scale, source-to-sink scales.

Figure 2. Thin-bedded mudstone-dominated deposits alternating with sandstone-dominated packages of deep-marine origin. A wide variety of depositional processes and hierarchy of sequences are recorded in these Jurassic strata.

SS2014 Lecturers:

Daniel Ariztegui, University of Geneva, Switzerland
John A. Howell, University of Aberdeen, United Kingdom
José Luis Massaferro, YPF S.A.**,** Argentina
João Trabucho-Alexander, University of Utrecht, the Netherlands
Ernesto Schwarz, University of La Plata, Argentina
Gonzalo D. Veiga, University of La Plata, Argentina

SS2018 Assistant: Dr. Agustín Argüello, University of La Plata, Argentina
SS2018 Participants: Approximately 24 IAS Post-Graduate Student Members

When & Where:

21 October 2018 Arrival in Zapala (drive from Neuquén Airport)

22-27 October 2018	Course Work in Huemelen Hotel (Zapala) and Field Studies in the Neuquén Basin
28 October	Departure from Zapala (drive to Neuquén Airport)

Figure 3. View of a typical landscape in western Patagonia, in which glacially-derived lakes are surrounded by the Andean mountains. This region is easy accessible from Zapala.

Important Dates:
25 May 2018 - Application Deadline
29 June 2018 - Notification of Acceptance
27 July 2018 - Registration Fee (300 EUR) Payment Deadline
10 August 2018 - IAS Travel Grants Announced
21 October 2018 - Arrival in Zapala

Note: Students must make their own travel arrangements to Neuquén Airport and apply for visas, if required

Who should apply: Doctoral students in geology who are interested in all aspects of siliciclastic and carbonate sedimentary systems (from continental to deep marine), as well as in the application of new tools in stratigraphy and source-to-sink analysis. Applicants must be IAS student member in 2018! Up to 24 students will be accepted.

How to apply:
Applications should comprise i) a motivation letter, ii) a CV, iii) proof of studentship, and iv) a letter of support from the applicant's supervisor. All files should be sent by email attachment to ias-office@ugent.be, before 25 May 2018, 23:59 CET.

Costs: The costs are estimated to be 300 EUR/student, double room, full pension for 7 days and transfer to and from Neuquén airport. Travel costs are not included, but students

can apply for a travel grant directly to the IAS student grant scheme via IAS website once notification of acceptance has been received.