



IPRCC 2018国际学术讲座 Global Geodynamics 全球地球动力学

主办单位：中国国际前寒武研究中心（IPRCC）

北京离子探针中心（国家科技资源共享服务平台）

时 间：2018年10月12日-14日

地 点：中国地质科学院新综合楼三楼X304-X308大会议室（地科院食堂楼上）

地 址：北京市西城区百万庄大街26号

主 讲 人：Trond H. Torsvik教授、Richard Ernst教授、David Evans教授

主讲人简介：



Prof. Richard Ernst,

Dept. of Earth Sciences, Carleton University, Canada

Dr. Richard E. Ernst was born in Philadelphia, USA and grew up in St. Louis. After finishing undergraduate work at Wesleyan University in 1978, he was attracted north to Canada by geological field research opportunities, and he received an MSc from the University of Toronto in 1981, and PhD from Carleton University in 1989. He then worked until 2003 on contracts mainly through the Geological Survey of Canada. At this point he started his own consulting firm, Ernst Geosciences, and also became an Adjunct Professor at Carleton University. Since July 2011 he has been Scientist-in-Residence at Carleton University, and since 2014 has also been a part-time professor at Tomsk State University, Russia. Dr. Ernst is author on more than 150 refereed scientific publications (h-index 45, citations 9680; Google Scholar, October 2017) mostly focused on all aspects of Large Igneous Provinces (LIPs) including links with mineral, metal and hydrocarbon resource exploration, continental reconstructions, extinction events, climate change, and planetary analogues. His comprehensive book on LIPs was published by Cambridge University Press in fall 2014. He has been co-leader (2003-2013), and leader since 2013 of the LIPs Commission of IAVCEI. He is PI on research and equipment grants totaling more \$4.4M CAD since 2009. This includes \$2.2M CAD from the mining and hydrocarbon industry and matching government grants for developing the LIP record as an exploration targeting tool. He is also currently the leader of a Russian "Mega-Grant" for setting up a LA-ICP-MS U-Pb dating facility at Tomsk State University (Siberia, Russia).



Prof. David Evans

Dept. of Geology & Geophysics, Yale University, America

Prof. David Evans was raised in Milwaukee, USA, and attended Yale University as an undergraduate student. He earned his PhD degree from Caltech, supervised by Joe Kirschvink. Evans's postdoctoral work, at The University of Western Australia, was part of the Tectonics Special Research Centre. Evans joined the faculty at Yale University in 2002, founding the Yale Paleomagnetic Facility. He was promoted to Professor in 2008 and was appointed Head of Berkeley College (one of Yale's residential colleges) in 2016. Evans is a leading authority on Precambrian paleogeographic reconstructions and supercontinents. His research has also delved into the long-term behavior of Earth's magnetic field, and paleoclimate variations including Snowball Earth ice ages. His work has emphasized the importance of true polar wander as a significant component of past continental motions. He has worked most extensively in southern Africa, Australia, Canada, China, and Brazil. He is author of nearly 100 peer-reviewed publications. Evans has been co-leader of two UNESCO-IUGS International Geoscience Programme (IGCP) projects: #509 Palaeoproterozoic Supercontinents and Global Evolution (2005-2010) and #648 Supercontinent Cycles and Global Geodynamics (2015-present). He is a voting member of the International Committee on Stratigraphy (ICS) Subcommissions for Precambrian Stratigraphy and Neoproterozoic stratigraphy. He is Associate Editor for the American Journal of Science. In 2015 he was elected Fellow of the Geological Society of America and received its George P. Woollard Award "for outstanding contributions to geology through the application of the principles and techniques of geophysics."



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Course Program 课程安排

Friday, 12 October 2018

08.40-08.45 Opening and technical announcements	A. Kröner/S. Liu
08.45-09.45 Overview: Integrating palaeomagnetism with geology to make reconstructions	D.A.D. Evans R.E. Ernst
09.45-10.45 Overview of worldwide LIPs	
10.45-11.00 Tea/coffee break	
11.00-12.00 Earth's magnetic field on its longest timescales	D.A.D. Evans
12.00-12.15 General discussion	
12.15-13.30 Lunch break	
13.30-14.30 Flood basalts: continental and oceanic, and Archean analogues	R.E. Ernst
14.30-15.30 True polar wander, orthoversion, and paleolongitude	D.A.D. Evans
15.30-15.45 Tea /coffee break	
15.45-16.45 Plumbing systems of LIPs (dikes, sills, layered intrusions and crustal magmatic underplates)	R.E. Ernst
16.45-17.00 General discussion	

Saturday, 13 October 2018

08.30-09.30 The Ediacaran plate reconstruction nightmare	D.A.D. Evans
09.30-10.30 LIPs links with rifting and continental breakup (and failed breakup)	R.E. Ernst
10.30-10.45 Tea/coffee break	
10.45-11.45 Chinese cratons in Rodinia	D.A.D. Evans
11.45-12.00 General discussion	
12.00-13.30 Lunch break	
13.30-14.30 LIPs and resource exploration (ore deposits, oil/gas)	R.E. Ernst
14.30-15.30 Chinese cratons in Nuna	D.A.D. Evans
15.30-15.45 Tea /coffee break	
15.45-16.45 LIPs and their environmental effects including causing mass extinctions	R.E. Ernst
16.45-17.00 General discussion, end of workshop	