

2024 Howard Street Robinson Medalist:

Professor Ali Polat

University of Windsor



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The Mechanism of Archean Continental Growth: Evidence from Field Relationships, and Volcanic Rock and TTG Geochemistry

Abstract: Prof. Ali Polat's presentation addresses the ongoing debate surrounding the tectonic mechanisms behind Archean continental crust formation. By examining field relationships and extensive geochemical data from volcanic rocks and tonalite-trondhjemite-granodiorite suites (TTGs) in Archean terrains, the research suggests that subduction-related processes at convergent plate margins were the primary drivers of continental growth from 4.0 to 2.5 billion years ago. The data, consisting of over 8,200 volcanic rock and 3,500 TTG samples, reveals that these formations exhibit geochemical signatures typical of oceanic and continental arc environments.

Join us on Zoom, Thursday April 3, 2pm EST

<https://umanitoba.zoom.us/j/62719299168?pwd=xqTzUfwtrlwqfmEoRBjPOqFW03qr2T.1>

Meeting ID: 627 1929 9168

Passcode: 209459