

---

# Orbital-scale changes in the Australian–Indonesian monsoon activity over the last two glacial periods

Wei Liu<sup>1</sup>, Eva Moreno<sup>\*2</sup>, François Baudin<sup>3</sup>, Franck Bassinot<sup>4</sup>, and Nianqiao Fang

<sup>1</sup>Institut des sciences de la Terre de Paris (UMR 7193) – Université Pierre et Marie Curie Paris 6 – France

<sup>2</sup>Centre de recherche sur la paléobiodiversité et les paléoenvironnements (UMR 7207) – Museum National d’Histoire Naturelle – France

<sup>3</sup>Institut des sciences de la Terre de Paris (UMR 7193) – Université Pierre et Marie Curie Paris 6 – France

<sup>4</sup>Laboratoire des sciences du climat et de l’environnement (LSCE) – CEA, CNRS, UVSQ – LSCE-Vallée Bât. 12, avenue de la Terrasse, F-91198 GIF-SUR-YVETTE CEDEX, France

## Résumé

A multi proxy study of core MD01-2376 collected in the Timor Sea has been used to study past changes in Indo-Australia monsoon dynamics, especially in relationships with Pacific Warm Pool evolution. This core covers the last two climatic cycles. Major elements have been measured by AVAATECH X-Ray Florescence core scanner. Heavy elements like Ti and Zr have been interpreted as aeolian tracers. They show a strong precession band and a good coherence with the june insolation at 30°N which might indicates changes in the Indo-Australia monsoon intensity. allow us to study past changes in monsoon activity at different time scale in relationships with orbitally-driven changes in past insolation. The aeolian tracer elements (K, Ti and Zr). On the other side, Br has been used as a marine productivity indicator and indicates a higher productivity during glacial than interglacial periods.

---

\*Intervenant