

**AAPG Annual Meeting  
March 10-13, 2002  
Houston, Texas**

Charles T. Aubourg<sup>1</sup>, Jean C. Guezou<sup>2</sup>, Brigitte R. Smith<sup>3</sup>, Xavier J. Braud<sup>4</sup>, N.R. Guya<sup>5</sup>, H. R. Bakthari<sup>6</sup> (1) Cergy Pontoise University, Cergy Paris, France (2) University Cergy Pontoise, Cergy, France (3) Paleomagnetism laboratory, Montpellier, France (4) University of Cergy Pontoise, Cergy, France (5) Institute of Geophysics, University of Teheran, Teheran, Iran (6) University of Tehran, Teheran, Iran

## **Kinematic of Zagros-Makran Syntaxis. New insights from structural analysis and paleomagnetic data**

The Zagros-Makran syntaxis makes the boundary between the Zagros continental collision and Makran oceanic subduction. The two prisms are separated by the Zendan fault, which is an active transpressive fault. Interestingly, many salt domes are outcropping within the syntaxis, while very few petroleum and gaz reservoir are present. Our analysis combined structural analysis at different scales: From SPOT image and geological maps; from field studies; from the magnetic fabric of clastics; and finally, from paleomagnetic data. Spot image analysis reveals nice examples of cryptic dextral strike slipe faulting, that are probably crustal accident. Field studies in two key folds (Sarah and Minab folds) demonstrates the complex pattern of folds and faults. Brittle deformation analysis reveals active compression and extension in the core of the syntaxis. Magnetic fabric data of clastics are well defined, showing a magnetic foliation parallel to bedding and magnetic lineation normal to an early record of Layer Parallel Shortening. Note that oblique foliation are also detected in apparently undeformed clastics carried by the finest grain fraction. Paleomagnetic data suggests 308 anticlockwise rotation North of Bandar-Abbas and about 208 clockwise rotation along the Minab thin Zagros belt. When taken all these results, we will propose a kinematical model of the syntaxis. We will emphasize the role of boundary limits and oblique shortening, and will suggest how Oman can play a role in the shape of the syntaxis.