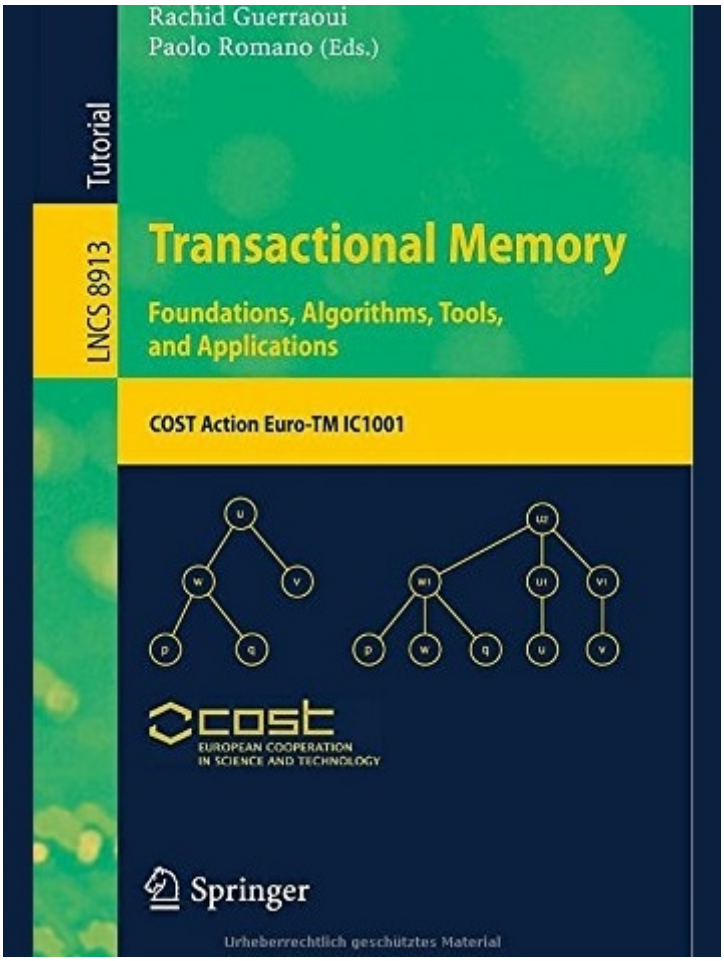
Experts from across Europe present conclusions on transactional memory

Transactional Memory features contributions from BSC researchers, including Osman Ünsal, Adrián Cristal and Gülay Yalç?n.



Experts from across Europe, including BSC's Osman Ünsal and Adrián Cristal, have published their findings on transactional memory. The publication *Transactional Memory. Foundations, Algorithms, Tools, and Applications* provides a compilation of results obtained by researchers participating in the four-year Euro-TM COST Action, a networking project to bring together influential figures in the field, co-financed by the European Commission.

The book highlights the emergence of parallel programming as an increasingly mainstream concern, thanks to the proliferation of multicore processors along with the growth in inherently parallel and distributed deployment platforms such as cloud computing. The authors argue that transactional memories offer an alternative programming model which may simplify the development and testing of concurrent programs, enhance code reliability and boost productivity. Academic research in the field has been followed by interest

in the commercial sector, with the launch of processors featuring transactional memory support.

Transactional Memory features contributions from BSC researchers, including Osman Ünsal, Adrián Cristal and Gülay Yalç?n, on reliability and transactional memory. Osman Ünsal, who also gave a presentation on energy-efficient transactional memory during the recent HiPEAC Conference 2015, commented: 'Transactional memory provides a mechanism to detect problems with data as well as a mechanism to undo a computation and go back to a safe-point, all of which are crucial to recover from processor errors for highly reliable operation.' He added: 'With the introduction of hardware transactional memory in recent processors, the costs of providing fault tolerance through transactional memory are reduced, making this a timely publication.'

Further information and a link to the open-access publication are available on the Euro-TM website.

Osman Ünsal presenting findings on energy-efficient transactional memory at the Euro-TM workshop:

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