This issue of the International Journal of Web Services research (JWSR) collects four papers on various topics of Web services.

The first paper is titled *DiALog: A Distributed Model for Capturing Provenance and Auditing Information*. Ringelstein and Staab tackle the privacy issue when SOA-based business workflows transfer data across organizational boundaries. The authors propose to attach meta-knowledge with data describing about how data should be handled. Logs are used to ensure privacy control. Formalization and a prototype are presented.

The second paper is titled *Flexible Probabilistic QoS Management of Orchestrations*. Rosario, Benveniste, and Jard study QoS management over service orchestrations based on soft probabilistic contracts. Centered around general QoS parameters such as “response time,” their proposed framework supports various composite QoS parameters. QoS contracts can also be derived. Contract monitoring is also supported.

The third paper is titled *A Dependable Infrastructure for Cooperative Web Services Coordination*. Alchieri, Bessani, and Fraga present an intrusion-tolerant coordination infrastructure supporting collaborative Web services involving multiple organizations. Based on the tuple space coordination model, their model decouples communication and support several security mechanisms. Cost issue is also discussed.

The fourth paper is titled *Selective Service Provenance in the VRESCo Runtime*. Michlmayr, Rosenberg, Leitner, and Dustdar study service provenance featuring both the origin and history of services. They propose an approach of collecting and retrieving service provenance, equipped with security support. Performance evaluation is presented as well.

The fifth paper is titled *Web Services Compositions Modelling and Choreographies Analysis*. Rouached, Fdhila, and Godart extend their earlier work on describing the semantics of WSBPEL to modeling behaviors of interacting compositions across partnered processes. They propose a representation enabling perform verification and validation of service interaction for behavior properties.