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

The first article is titled An Integrated Framework for Web Services Orchestration. Saab, Coulibaly, Haddad, Melliti, Moreaux, and Rampacek propose a formal semantics for BPEL based on process algebra, and an algorithm that deduces a potential client modeled in a (timed) automaton. The authors also propose a service orchestration process, from a UML description to a BPEL model and to Java code.

The second article is titled Early Capacity Testing of an Enterprise Service Bus. Ueno and Tatsubori explore a feasible way for capacity planning and performance evaluation of Enterprise Service Bus (ESB) as the core messaging infrastructure of an enterprise service-oriented architecture. Their proposed technique aims to be used at the early stages of the system development life cycle. The authors also show their mock environment as a case study.

The third article is titled Security for Web Services - Standards and Research Issues. Martino and Bertino discuss the major security requirements for Web services and survey how such security requirements are addressed by existing and on-going standards for Web services security. They also discuss the issues related to the use of the standards and open research issues in the area of access control for Web services.

The fourth article is titled The Web Service Enabled Online Laboratory. Yan, Liang, Roy, and Du Study how to use Web services and Service Oriented Architecture to enhance the interoperability and usability of the remote instruments toward building online labs. A prototype system is built as a proof of concept.

The fifth article is titled An Efficient Service Discovery Method and Its Application. Deng, Wu, Wu and Li propose an information model to enhance service discovery. A two-phase semantic-based service discovery method is presented with operation matchmaking and operation-composition matchmaking. A case study is reported as well.
As a research staff member and program manager of application architectures and realization at IBM T.J. Watson Research Center, Liang-Jie (LJ) Zhang has made significant original contributions to services computing innovations and interactive media systems. He is the founding chair of IBM Research’s Services Computing Professional Interest Community and has been leading an IBM Service-Oriented Architecture (SOA) tooling and architecture research project for years. He has been coleading IBM’s SOA Solution Stack (aka SOA Reference Architecture: Solution View) project since 2004. His new book Services Computing was published by Springer in 2007. He has received 2 IBM Outstanding Technical Achievement Awards, 9 IBM Plateau Invention Achievement Awards, an Outstanding Achievement Award from the World Academy of Sciences, and an Innovation Leadership Award from the China Institute of Electronics. Zhang has 37 granted patents and 20 pending patent applications. As the lead inventor, he holds federated Web services discovery and dynamic services composition patents. LJ chairs the SOA and Web Services standards working group to define the IEEE 1723 Standard for SOA Solution Reference Architecture. He is the chair of IEEE Computer Society Technical Committee on Services Computing.