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CALL FOR PAPERS  
Special Issue of  
Springer Photonic Network Communications Journal  
on  
**Software-Defined Elastic Optical Networks**  
Submission Deadline: Jan. 15, 2014

<http://www.springer.com/computer/communication+networks/journal/11107>

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#### SCOPE:

Recent advances in flexible and programmable device technologies, such as flexible-spectrum variable-rate transceivers and reconfigurable optical add-drop multiplexers (ROADMs), coupled with emergence of software-defined network paradigms, such as OpenFlow, have enabled the possibility of software-defined elastic optical networks that can be flexibly and dynamically provisioned and reconfigured. The ability to flexibly manage and provision resources allows service providers to support a wide range of emerging dynamic high-bandwidth applications, including data center networking, cloud computing, and optical network virtualization.

In developing mechanisms for supporting the rapid and flexible provisioning of resources in elastic optical networks, several key challenges must be considered. These challenges may include issues related to the cost-effective design of data and control plane architectures, the intelligent provisioning and reconfiguration of resources to support dynamic and heterogeneous applications, the design of mechanisms to provide survivability against equipment failures and major disasters, and the design of architectures and protocols for reducing energy consumption in elastic optical networks.

This special issue solicits submissions of original work and survey papers on all topics related to recent advances in elastic optical network and software-defined optical networks. Topics of interest include (but are not limited to):

- Software-defined elastic optical network architectures
- Elastic optical network design and planning
- Routing, spectrum allocation, and modulation format selection algorithms
- SDN-enabled elastic optical network virtualization
- Virtual optical network mapping in elastic optical networks
- Elastic optical network survivability against failures and large-scale disasters
- Energy efficiency in elastic optical networks
- Software-defined elastic optical networks for cloud and data center applications
- Security issues in software-defined elastic optical networks
- Software-defined control plane implementations with GMPLS and/or OpenFlow for elastic optical networks
- Software-defined elastic optical network testbed demonstrations

#### DEADLINES:

**Submissions: Jan. 15, 2014**

**Decision Notification: April 15, 2014**

**Revisions Due: May 15, 2014**

**Publication: Third Quarter 2014**

#### SUBMISSION INSTRUCTIONS:

The submitted papers must describe original research. The submitted articles should not be accepted, published, or currently under review in other journals or conferences.

Papers must not exceed 15 pages in the prescribed single-column Springer format, including figures, tables, and references. Author guidelines for preparation of manuscript can be found at:

<http://www.springer.com/computer/communication+networks/journal/11107>

Paper submission is using the website:

<http://www.editorialmanager.com/pnet/>

The authors must select “S.I.: Software-Defined Elastic Optical Networks”.

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