Special section on selected papers from TMA 2015

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The International Workshop on Traffic Monitoring and Analysis (TMA) started on 2009 under the umbrella of the COST Action IC0703 "Data Traffic Monitoring and Analysis (TMA): Theory, Techniques, Tools and Applications for the Future Networks" granted by the European Commission. The TMA action brought together several research groups from academic and industrial organizations from 24 European countries, with the objective of consolidating the European research community in the fields of network monitoring and traffic analysis.

After the end of the TMA action in 2012, the TMA workshop was already consolidated and continued as an independent venue with a more international focus. The workshop gradually incorporated more non-European members in the Organizing and Technical Program Committees and is currently a well established workshop in the area of network measurements that attracts submissions from many countries outside Europe.

Since 2014, the TMA workshop is also co-located with the TMA Doctoral School that provides training to PhD students during the two days before the workshop. The Doctoral School includes multiple lectures in topics related to traffic monitoring and analysis given by renowned researchers in the area. The TMA Doctoral School also encourages interactions between students and researchers, and allows PhD students to present their ongoing work in form of posters to the TMA audience.

The seventh edition of the TMA workshop was celebrated in Barcelona in April 23-24, 2015. For the first time, TMA 2015 extended the technical program to two days and co-located two satellite workshops that took place on April 22, 2015, namely the SMART and mPlane workshops.

The TMA 2015 technical program consisted of 16 high quality papers out of 54 submissions. The TPC was composed of 34 international researchers. Overall, 83 researchers attended the conference and 47 students participated the PhD school. 26 travel grants were also awarded to students thanks to the sponsorship of ACM SIGCOMM.

This special section features a selection of extended versions of the best papers presented at TMA 2015. In particular, the 6 best papers presented at TMA 2015 were invited to submit an extended version that contained a novel and significant contribution compared to their original TMA 2015 submission. Out of them, 4 extended papers were finally submitted. Each paper received at least 3 reviews and, after two review rounds, 2 papers were selected for publication in this special section.

Viet-Hoang Tran, Quentin De Coninck, Benjamin Hesmans, Ramin Sadre and Olivier Bonaventure in "Observing real Multipath TCP traffic" study the real-world usage of Multipath TCP based on 5-month-long packet traces from a single web server. The authors analyze the use of a variety of features available with MPTCP. They report a detailed analysis on middlebox interference, subflow establishment, subflow roundtrip-times, data distribution among subflows, and reinjection overhead.

Tatsuya Mori, Takeru Inoue, Akihiro Shimoda, Kazumichi Sato, Shigeaki Harada, Keisuke Ishibashi and Shigeki Goto in "Statistical estimation of the names of HTTPS servers with Domain Name Graphs" present a methodology to infer the hostnames of HTTPS traffic. The authors do so by correlating HTTPS flows with DNS queries and responses. In particular they use webpage visits and DNS redirection to unveil the hostnames and validate the effectiveness of their approach using large-scale Internet traffic.

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