Dear Editors and Reviewers,

We hereby submit a paper titled “Network-Clustered Multi-Modal Bug Localization" to Transactions on Software Engineering (TSE) journal. The paper is an extended version of our paper entitled “Information Retrieval and Spectrum Based Bug Localization: Better Together” presented at the ESEC/FSE 2015 conference.

The major extensions that we made are as follows:

* We extend AML (presented in ESEC/FSE 2015) to NetAML. In the nutshell, we optimize the integrator component of NetAML by developing an adaptive learning procedure based on Newton update with our customized convex loss function. Details of NetAML’s integrator are shown Section 3.1, 3.2, and 3.3.
* We include two additional graph construction modules to NetML that server to compute similarities between bug reports and methods, and between two different methods. Details of these modules are discussed in Section 3.5.
* We revise Section 4 (Experiments) to present experiment results demonstrating the effectiveness of NetAML in various settings. We also include a comparison between NetML and AML as well as other baselines. NetAML outperforms the best performing baselines by up to 48.39% in terms of the number of bugs successfully localized when a developer inspects the top 1 methods.

Page-wise, the paper has been extended from 12 pages to 15 (in double column format). We believe we have extended the conference paper substantially (by 25%).

Thank you for considering our paper for publication.

Yours Sincerely,

Thong, Richard, Duy, and David.