

Motivation Letter*Structural Inference Spring School 2018*

December 4, 2017

Dear Madam/Sir,

With this letter I would like to express my interest in studying at next year's Structural Inference Spring School.

To briefly introduce myself, I am currently a first year PhD student in team SequeL, at Inria Lille-Nord Europe, under the supervision of Michal Valko and Emilie Kaufmann. My doctoral thesis will focus on bandits theory with its applications especially in hyperparameter optimization for machine learning algorithms. Before that, I received a BSc and MSc of Computer Science from Ecole normale supérieure de Cachan (Rennes Campus) and a BSc of Mathematics from Université Pierre et Marie Curie (Paris VI).

As part of my studies, I am interested in finding theoretical guarantees for bandit learning (and reinforcement learning) algorithms, which happens to be also one major research topics of Sébastien Bubeck, one of the invited speakers this time. Therefore, I believe that participating to the spring school can help me get some profound understanding of my future research. Meanwhile, a very often employed toolbox in my domain is concentration inequalities, thus I am also fascinated by discovering different statistic and probabilistic methods. Hopefully I can get a more solid perspective on what I am working on and enlarge my knowledge with the help of all the three invited speakers as well as the closing workshop.

Another reason that I am attracted by the spring school – this is what my supervisor told me, he has already sent two of his students to the spring school in the past – is that unlike other schools, where you get couple of hours with a lot of speakers, here you get 3 speakers but a lot of time with them. This could be a strong point for me, in the sense that there could be a balance between discovering too many new subjects and having a relatively deep understanding on one specific topic.

Finally, since I am just starting my PhD, thus do not have meaningful publications yet, but I still have some research perspectives to what end I want to achieve during my 3 years of PhD life. Thus I firmly believe that I am able to cope with the requirements of the spring school.

I appreciate you taking the time to review my application and do not hesitate to contact me for any further information needed.

Yours sincerely,

Xuedong Shang**Xuedong Shang**