



**Higher School of Economics
Institute of Cognitive Neuroscience**

Myasnitskaya 13, bld. 4
101000, Moscow, Russia

Letter of Recommendation

To Whom it May Concern:

I am writing this letter in support of the admission of Pierre Houzelstein at the Summer School "Advanced tools for data analysis in Neuroscience". I have known Pierre since April 2021 in my quality of co-advisor of his research stay at the Group for Neural Theory at the Ecole Normale Supérieure (Paris). Pierre's internship, co-advised with Dr. Boris Gutkin, will focus on studying the phase response of a linear focus forced by noise, a dynamical portrait intensively used nowadays to describe brain activity.

Since the start of his internship, Pierre and I have met on-line on a regular (almost daily) basis to develop the project. First, he read and understood the basic theory of deterministic phase-amplitude variables. Therefore, he is also familiar with basic theory of dynamical systems. Moreover, thanks to Dr. B. Gutkin, he is achieving a solid basis on computational neuroscience. In parallel to that, Pierre is getting familiar with computational routines involving signal analysis and stochastic integration. At this point, I would like to emphasize Pierre's capacity for learning and performing complex scripts in few time. Pierre has so far already been able to perform a complete set of scripts in Python integrating stochastic dynamics and extracting phase and expected values from the data. In that sense, I state he has the necessary computational background to successfully tackle the School.

Besides describing his work, I would like to stress that I have a very good general impression of Pierre, also at personal level. Even though I have only known Pierre since April 2021, I perceive he has a lot of potential to become a prominent researcher: he shows sincere interest in learning and in performing his tasks as best and fast as possible. I also noticed he has critical and creative thinking. Even if his internship will cover just two months, I fully believe he will contribute to the project with important conceptual perspectives and computational results. Thereby, I really consider Pierre Houzelstein is on the way of being a very promising PhD candidate. For these reasons, it would be very good for such a high motivated student to join the above referred Summer School. After knowing his interests and motivations, I think it really is a great School which will help him to increase his background both in computational neuroscience and coding, thus improving his very promising profile. Last but not least, I am sure Pierre will contribute to generate a participative and intellectual enriching atmosphere not for him but also for his School colleagues.

All in all, I absolutely support and recommend the admission of Pierre Houzelstein for the Summer School "Advanced tools for data analysis in Neuroscience".

Sincerely,
Alberto Pérez Cervera