A computational approach to hierarchical emergence

Speaker

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Abstract:
How to best understand multi-scale processes from a computational perspective? This talk will introduce a computational approach to characterise emergent macroscopic processes in terms of how they express self-contained informational, interventional, and computational properties. This approach reveals a hierarchy of nested self-contained processes, which determines what computations take place at what level. This framework will be illustrated on various applications, including classical models of statistical physics and computational neuroscience. As a key application, we will outline how this framework enables a principled approach for investigating the capabilities and internal representations of AI agents.

登録はこちらから↓

講演日時

2025 年 **10** 月 **14** 日 （火）**15:00-16:30**

言語　英語

講演場所　【ハイブリッド】北海道大学中央キャンパス総合研究棟2号館3階3-1 CHAIN講義室（登録不要）及びZoomによるオンライン配信（要登録）

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