



2018 YCCSA SUMMER SCHOLARSHIP PROJECT SUBMISSION

This form is for prospective project supervisors to submit their projects to be included in the YCCSA Summer Scholarships Programme for 2018.

It is the purpose of the YCCSA Summer School that any projects submitted are novel and interdisciplinary in nature.

Date	<i>12 January 2018</i>
Supervisors' Names and Departments / Affiliation and Contact Email	<p><i>Dr. Leo Caves, Biology, YCCSA (LSDC) leo.caves@york.ac.uk</i> <i>Dr. Philip Garnett, York Management School, YCCSA (PRG) philip.garnett@york.ac.uk</i></p> <p><i>Dr. Ana Teixeira de Melo, Centre for Social Studies, University of Coimbra, Portugal, YCCSA Associate (ATM) anamelopsi@gmail.com ; anatmelo@ces.uc.pt</i></p> <p>[Note: Although LSDC and ATM have previous collaborations, this project extends to a new collaboration with PRG and represents a new area of inquiry and exploration]</p>
Project Title	<i>Diffusion of complexity concepts: An interdisciplinary mapping</i>
Project Description	<i>Complexity (or the study of complex systems) is associated with some key concepts such as feedback, self-organisation and emergence. Many of these concepts have originated in one particular domain of science but have then circulated to other domains. In this process, concepts may have been preserved or transformed, applied directly, used as metaphors or otherwise adapted. The aim of the project is to explore and characterise the diffusion of complexity concepts across domains. The project will entail the use of literature databases and the development/application of co-citation network analysis.</i>
Required Skills	<i>Student 1: (Background knowledge) Interest in Complex Systems; (Skills) experience of some basic computer programming/scripting ; Optional Student 2: (Background knowledge) Interest in Complexity and Interdisciplinarity; (Skills) qualitative research methods</i>
Supervision and Collaboration Arrangements	The supervisory team envisage a weekly progress meeting, with additional informal meetings as required. Principal areas of supervisory support are:

	LSDC - R and network analyses, PRG - graph databases and network analyses; ATM - complexity concepts and frameworks for interpretation.
Project Dates	<i>The summer school runs for 9 weeks, starting on Monday, 09 July 2018 and finishing on Friday, 07 September 2018.</i>
Other Information	<i>We foresee that the project could support two students: 1: more quantitative for the computational dimensions of the project, 2: for more in-depth qualitative analyses of the conceptual variations across research domains.</i>
References	<p>Trujillo, C. M., & Long, T. M. (2018). Document co-citation analysis to enhance transdisciplinary research. <i>Science Advances</i>, 4(1), e1701130. doi: 10.1126/sciadv.1701130</p> <p>Bentley, R. A., Garnett, P., O'Brien, M. J., & Brock, W. A. (2012). Word Diffusion and Climate Science. <i>PLoS ONE</i>, 7(11), e47966. doi:10.1371/journal.pone.0047966.</p> <p>Hawley, D. R., & Geske, S. (2000). The use of theory in family therapy research: a content analysis of family therapy journals. <i>Journal of Marital and Family Therapy</i>, 26(1), 17–22.</p>

When complete, please email the form to sarah.christmas@york.ac.uk