

<b>PI name &amp; contact details:</b>	Prof. Stefan Hutzler, School of Physics, Trinity College Dublin, Ireland. Email: stefan.hutzler@tcd.ie	
<b>School:</b>	School of Physics, Trinity College Dublin	
<i>Has project been agreed with head (or nominee) of proposed registration school?</i>	YES	
<b>Research Centre / group affiliation:</b>	Foams and Complex Systems	
<b>Research group / centre website:</b>	<a href="http://www.tcd.ie/physics/foams">http://www.tcd.ie/physics/foams</a>	
<b>PI website / link to CV:</b>	<a href="http://www.tcd.ie/Physics/Foams/docs_public/CV_Hutzler_2012.pdf">http://www.tcd.ie/Physics/Foams/docs_public/CV_Hutzler_2012.pdf</a>	
<b>Brief summary of PI research / research group / centre activity (2 or 3 lines max):</b>		
The group is interested in general problems of complexity, as arise in the physics of foams (where detailed local bubble-bubble interaction is not sufficient to describe the global behaviour) and econophysics (e.g. modelling stock-market fluctuations and wealth distributions).		
<b>Title &amp; brief description of PhD project (suitable for publication on web):</b>		
<u>Physical economics</u> New approaches are needed to understand the functioning of economical processes. This project concerns the development of agent models within the framework of what has been called physical economics, to simulate trade and distribution of wealth.		
<b>Unique selling points of PhD project in TCD:</b>		
<i>projects should offer something that's not available in Brazil – specific equipment, multi-disciplinarity, aspects of structured programme, links with industry, placements, links with other research groups etc.</i>		
The Trinity PhD is a structured PhD and students can access discipline-specific training, as well as generic and transferable skills. All PhD students are eligible to participate in the Innovation Academy which offers a Postgraduate Certificate in Innovation and Entrepreneurship to assist PhD students identify and exploit the value within their research.		
<b>Name &amp; contact details for project queries, if different from PI named above:</b> see details above		
<b>Please indicate the graduates of which disciplines that should apply:</b>		
Physics		
<b>Ciência sem Fronteiras / Science Without Borders Priority Area:</b>		
<i>Please indicate the specific programme priority area under which the proposed PhD project fits- choose only one (tick box):</i>		
Engineering and other technological areas		
Pure and Natural Sciences (e.g. mathematics, physics, chemistry)		x
Health and Biomedical Sciences		
Information and Communication Technologies (ICTs)		
Aerospace		
Pharmaceuticals		
Oil, Gas and Coal		
Renewable Energy		

Minerals	
Biotechnology	
Nanotechnology and New Materials	
Technology of prevention and remediation of natural disasters	
Biodiversity and Bioprospection	
Marine Sciences	
Creative Industry	
New technologies in constructive engineering	