

### *Phases and Objectives*

Year	Goals (Name of the objective)		Associated activities
2011	1	Exact controllability of semilinear parabolic stochastic equations	<b>Fundamental research:</b> - formulation and verification of hypotheses - elaboration of conceptual models <b>Dissemination of the results:</b> - Presentations at scientific meetings - Results editing and preparation of some articles - Construction of the web page <b>Other support activities:</b> - Research stages, scientific visits
2012	1	Localization of solutions to stochastic porous media equation	<b>Fundamental research:</b> - formulation and verification of hypotheses - elaboration of conceptual models <b>Dissemination of the results:</b> - Presentations at scientific meetings - Editing of articles and submitting to international and ISI journals - Updating of the web page - Organization of a workshop <b>Other support activities:</b> - Research stages, scientific visits, participation at trainings (Ph.D student)
	2	Existence of generalized solutions to degenerate nonlinear diffusion equations via variational methods	<b>Other support activities:</b> - Research stages, scientific visits, participation at trainings (Ph.D student)
	3	Nonlinear diffusion equations and image video processing	- Connection to European research networks
2013	1	Existence and uniqueness of solutions to stochastic diffusion equations with singular coefficients	<b>Fundamental research:</b> - formulation and verification of hypotheses - elaboration of conceptual models <b>Dissemination of the results:</b> - Presentations at scientific meetings - Editing of articles and submitting to international and ISI journals - Updating of the web page - Organization of a workshop <b>Other support activities:</b> - Research stages, scientific visits, participation at trainings (PhD student) - Connection to European research networks
	2	Boundary and internal stabilization of nonlinear diffusion equations	<b>Other support activities:</b> - Research stages, scientific visits, participation at trainings (PhD student) - Connection to European research networks
	3	Optimal control to degenerate nonlinear diffusion equations	
	4	Image restoring via nonlinear diffusion equations	

2014	1	Stabilization of nonlinear diffusion equation via stochastic controllers	<b>Fundamental research:</b> - formulation and verification of hypotheses - elaboration of conceptual models - development of a scientific software <b>Dissemination of the results:</b> - Presentations at scientific meetings - Editing of articles and submitting to international and ISI journals <b>Other support activities:</b> - Updating of the web page - Organization of a workshop - Research stages, scientific visits, participation at trainings (PhD student) - Connection to European research networks
	2	Inverse problems to degenerate diffusion equations	
	3	Applications of nonlinear diffusion equations to signal processing	