

**Research School: Shape optimization, spectral
geometry and calculus of variations
CIRM Luminy March 29 - April 2
Program**

Monday, March 29

8:30 - 9:45 Jimmy Lamboley: *Some theoretical aspects of shape optimization (1)*

9:45 - 11:00 Bruno Colbois and Pedro Freitas: *Spectral geometry (1) Spectral isoperimetric inequalities: the Euclidean case*

11:00 Coffee break

11:15 - 12:15 Giuseppe Buttazzo : *Upper and lower bounds for some shape functionals*

12:30 Lunch

15:00 - 16:40 Almut Burchardt: *Geometric and isoperimetric inequalities (1)*

16:40 - 17:00 Coffee break

17:00 - 18:30 Working Session¹

19:30 Dinner

¹working sessions= exercises classes or/and open problems given by young participants and office hours of professors

Tuesday, March 30

8:30 - 9:45 Charles Dapogny and Edouard Oudet: *Numerical study of shape optimization problems (1)*

9:45 - 11:00 Jimmy Lamboley: *Some theoretical aspects of shape optimization (2)*

11:00 Coffee break

11:15 - 12:15 David Krejcirik: *Spectrum of the Mbius strip: true, fake and not-so-fake*

12:30 Lunch

15:00 - 16:40 Almut Burchardt: *Geometric and isoperimetric inequalities (2)*

16:40 - 17:00 Coffee break

17:00 - 18:00 Iosif Polterovitch: to be announced

19:30 Dinner

Wednesday, March 31

8:30 - 9:45 Bruno Colbois and Pedro Freitas: *Spectral geometry (2) Spectral isoperimetric inequalities: the case of hypersurfaces*

9:45 - 11:00 Charles Dapogny and Edouard Oudet: *Numerical study of shape optimization problems (2)*

11:00 Coffee break

11:15 - 12:30 Jimmy Lamboley: *Some theoretical aspects of shape optimization (3)*

12:30 Lunch

14:00 - 17:00 Free afternoon

17:00 - 18:30 Working Session

19:30 Dinner

Thursday, April 1

8:30 - 9:45 Jimmy Lamboley: *Some theoretical aspects of shape optimization (4)*

9:45 - 11:00 Charles Dapogny and Edouard Oudet: *Numerical study of shape optimization problems (3)*

11:00 Coffee break

11:15 - 12:30 Bruno Colbois and Pedro Freitas: *Spectral geometry (3) Spectral isoperimetric inequalities: the Euclidean case*

12:30 Lunch

15:00 - 16:40 Almut Burchardt: *Geometric and isoperimetric inequalities (3)*

16:40 - 17:00 Coffee break

17:00 - 18:30 Working Session

19:30 Dinner

Friday, April 2

8:30 - 9:45 Bruno Colbois and Pedro Freitas: *Spectral geometry (4) Spectral isoperimetric inequalities: the case of hypersurfaces*

9:45 - 11:00 Charles Dapogny and Edouard Oudet: *Numerical study of shape optimization problems (4)*

11:00 Coffee break

11:15 - 12:15 Cristina Trombetti: to be announced

12:30 Lunch

End of the School