

Master Class: GENERALIZED GEOMETRY
by Nigel Hitchin and Marco Gualtieri
30 May – 3 June 2011
Location: building 1531, room 119 (Aud. D2)

Monday 30 May: Generalized Riemannian geometry

- 9.30-10.00 Coffee/tea and bread rolls outside the auditorium
- 10.00-10.45 Introduction and basic features (Hitchin)
- 11.15-12.00 Generalized metrics and skew torsion (Hitchin)
- 12.00-14.00 Lunch
- 14.00-14.45 Spinors, harmonic forms and Hodge theory (Gualtieri)
- 14.45-15.15 Afternoon tea outside the auditorium
- 15.15-16.00 Extended actions and quotients (Gualtieri)
- 18.30- Pizza night in the QGM Lounge (building 1530, room 326)

Tuesday 31 May: Generalized complex geometry

- 9.30-10.00 Coffee/tea and bread rolls outside the auditorium
- 10.00-10.45 Lie algebroids, Dirac structures and generalized complex structures (Gualtieri)
- 11.15-12.00 Examples of generalized complex structures in dimensions 4 and 6 (Gualtieri)
- 12.00-14.00 Lunch
- 14.00-14.45 Generalized holomorphic bundles (Hitchin)
- 14.45-15.15 Afternoon tea outside the auditorium
- 15.15-16.00 Co-Higgs bundles and B-fields (Hitchin)

Wednesday 1 June: Generalized Kähler geometry

- 9.30-10.00 Coffee/tea and bread rolls outside the auditorium
- 10.00-10.45 Generalized Kähler and bi-Hermitian (2,2) geometry (Gualtieri)
- 11.15-12.00 The Hodge decomposition (Gualtieri)
- 12.00-14.00 Lunch
- 14.00-14.45 Generalized Kähler manifolds as complex Poisson manifolds (Hitchin)
- 14.45-15.15 Afternoon tea outside the auditorium
- 15.15-16.00 Examples (Hitchin)



Thursday 2 June: Holomorphic Poisson geometry

9.30-10.00 Coffee/tea and bread rolls outside the auditorium

10.00-10.45 Deformations of Poisson manifolds (Hitchin)

11.15-12.00 Poisson modules (Hitchin)

12.00-14.00 Lunch

14.00-14.45 Holomorphic Dirac structures (Gualtieri)

14.45-15.15 Afternoon tea outside the auditorium

15.15-16.00 Generalized Kähler structures on moduli spaces of instantons (Gualtieri)

18.00-22.30 Special dinner at *Restaurant Le Pagnol* (Sdr. Alle 29, 8000 Aarhus C)

Friday 3 June: Generalized geometry and exceptional groups

9.30-10.00 Coffee/tea and bread rolls outside the auditorium

10.00-10.45 G2 geometries (Hitchin)

11.15-12.00 Exceptional generalized geometry (Hitchin)

12.00-14.00 Lunch