

## Index

---

- action functional
  - of a curve of measures, 175
  - of a fluid, 167
- convex functions
  - basics, 20
  - first order theory, 67
  - second order theory, 77
- countable Lipschitz property, 227
- curve of measures, 175
- direction map, 224
- displacement
  - convexity, 112, 160
  - interpolation, 109, 118, 181
- dissipation, 130
- dissipation inequality, 131
- entropy, 105, 147
- equation
  - continuity, 167, 175
  - Euler, 169
  - Fokker–Planck, 139, 154
  - heat, 133
  - Monge–Ampère, 86
  - transport, 167
- gradient flow, 130
- inequality
  - Brunn–Minkowski, 115
  - Euclidean isoperimetric, 99
  - Sobolev, 100
- Kantorovich
  - duality
    - discrete quadratic cost, 28
    - general cost, 46
    - linear cost, 8, 51
    - quadratic cost, 53
  - potential, 7, 51, 217
  - problem
    - discrete, 15
    - general cost, 38, 60, 214
    - linear cost, 51
    - quadratic cost, 53, 59
- Lyapunov functional, 130
- maximal transport ray, 222
  - map, 224
- minimizing movements scheme, 135, 150
- Monge problem
  - discrete, 32
  - general cost, 7, 38, 60, 214
  - linear cost, 6
  - original, 4
  - quadratic cost, 59
- non-crossing condition, 223
- theorem
  - Alexandrov, 79
  - Benamou–Brenier formula, 184
  - Brenier, 62
  - Brenier projection, 171
  - Brenier–McCann, 73
  - Choquet, 27
  - disintegration, 205
  - Jordan–Kinderlehrer–Otto, 153
  - Kantorovich, 45
  - localization, 254

- one dimensional transport, 198
- Payne–Weinberger comparison, 248
- Rockafellar, 24
- Sudakov, 216
- transport
  - map, 5, 211
  - maximal t. ray, 222
  - maximal t. ray map, 224
  - maximal t. ray map of a potential, 224
  - motionless set, 223
  - plan, 36, 211
  - ray, 222
  - set, 222
  - t. set of a potential, 224
  - t. set with endpoints, 222
- transport maps
  - Brenier, 62, 65, 86
  - discrete, 32
  - Knothe, 10
  - monotone, 9, 198
  - Sudakov, 216, 226, 228