



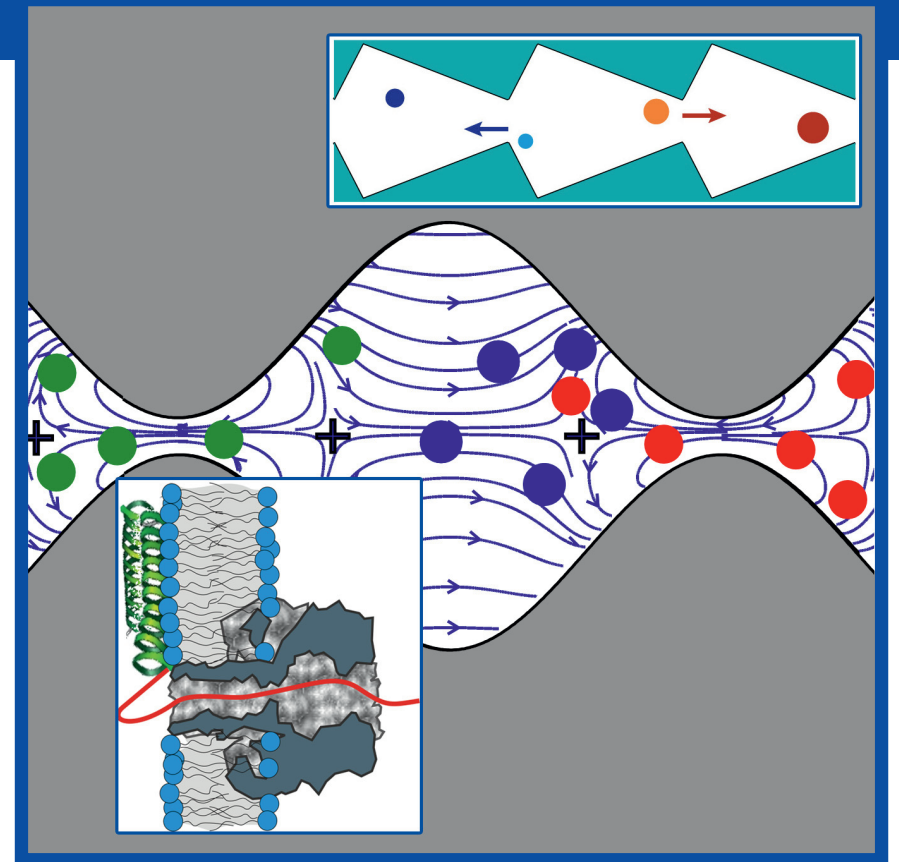
MAX-PLANCK-GESELLSCHAFT

# Brownian Motion in Confined Geometries



## International Workshop 17 – 21 March 2014

The Brownian dynamics of micro- or nanosized particles or molecules often proceeds under geometrical constraints leading to novel transport phenomena. We aim at bridging available results on confined Brownian motion of point particles with the emerging work on translocation of realistic complex solutes relevant to biotechnology and biophysics.



### Topics include

- Brownian motion and random walks in confined geometries
- escape problems and search strategies in confined geometries
- channel-facilitated transport of biopolymers
- applications in micro- and nano-fluidics confined geometries
- mass and charge transport in artificial and natural micro- and nano-structures
- diffusive mechanisms in confined geometries
- transport of particles, polymers and complex biomolecules in biological cells and zeolites
- catalytic reactions occurring on confining, non-uniform templates or in porous media
- separation techniques of size-dispersed particles
- geometrically confined self-propelled particles

### Invited speakers (\* to be confirmed)

- |                           |                                 |
|---------------------------|---------------------------------|
| D. Anselmetti* (Germany)  | B. Palmieri (Israel)            |
| C. Bechinger (Germany)    | J. Percus (USA)                 |
| O. Benichou (France)      | U. Rant* (Germany)              |
| L. Dagdug (Mexico)        | D. Ray* (India)                 |
| K. Dorfman (USA)          | S. Redner (USA)                 |
| J. Dzubiella (Germany)    | D. Reguera (Spain)              |
| P. Hänggi (Germany)       | M. Rubi (Spain)                 |
| D. Holcman* (France)      | A. Siria (France)               |
| P. Kalinay (Slovakia)     | I. Sokolov (Germany)            |
| H. Kantz (Germany)        | R. Voituriez (France)           |
| U. Keyser (UK)            |                                 |
| R.B. Lehoucq (USA)        | <b>Scientific coordinators:</b> |
| S.G. Lemay (Netherlands)  | Sergey M. Bezrukov              |
| H. Löwen (Germany)        | Bethesda, USA                   |
| F. Marchesoni (Italy)     | Lutz Schimansky-Geyer           |
| S. Martens (Germany)      | Berlin, Germany                 |
| R. Metzler (Germany)      | Gerhard Schmid                  |
| M. Muthukumar (USA)       | Augsburg, Germany               |
| P. Nielaba* (Germany)     | <b>Organisation:</b>            |
| I. Pagonabarraga* (Spain) | Mandy Lochar, MPIPKS            |

Applications received before December 31, 2013 are considered preferentially.

Applications are welcome and should be made by using the application form on the conference web page (please see URL below). The number of attendees is limited. The registration fee for the international workshop is 120 Euro and should be paid by all participants. Costs for accommodation and meals will be covered by the Max Planck Institute. Limited funding is available to partially cover travel expenses. Please note that childcare is available upon request.

### For further information please contact:

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