Traffic and Granular Flow '07

This book covers several research fields, all of which deal with transport. Three main topics are treated: road traffic, granular matter, and biological transport. Different points of view, i.e. modelling, simulations, experiments, and phenomenological observations, are considered. Sub-topics include: highway or urban vehicular traffic (dynamics of traffic, macro/micro modelling, measurements, data analysis, security issues, psychological issues), pedestrian traffic, animal traffic (e.g. social insects), collective motion in biological systems (molecular motors...), granular flow (dense flows, intermittent flows, solid/liquid transition, jamming, force networks, fluid and solid friction), networks (biological networks, urban traffic, the internet, vulnerability of networks, optimal transport networks) and cellular automata applied to the various aforementioned fields. ... more on http://springer.com/978-3-540-77073-2