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Abstracts of Plenary and Invited Lectures

Section:

0. Plenary Lectures

1991 MS Classification: 53C15, 58D99
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Fibrations in Symplectic Topology

Every symplectic form on a $2n$-dimensional manifold is locally the Cartesian product of n area forms. This local product structure has global implications in symplectic topology. After briefly reviewing the most important achievements in symplectic topology of the past 4 years, the talk will discuss several different situations in which one can see this influence: for example, the use of fibered mappings in the construction of efficient symplectic embeddings of fat ellipsoids into small balls, and the theory of Hamiltonian fibrations (work of Lalonde, Polterovich, Salamon and the speaker). The most spectacular example is Donaldson's recent work, showing that every compact symplectic manifold admits a symplectic Lefschetz pencil.