Politecnico di Torino

SHORT COURSE IN RIVER MORPHODYNAMICS

PhD in Civil and Environmental Engineering
High level Course (Excellence training)

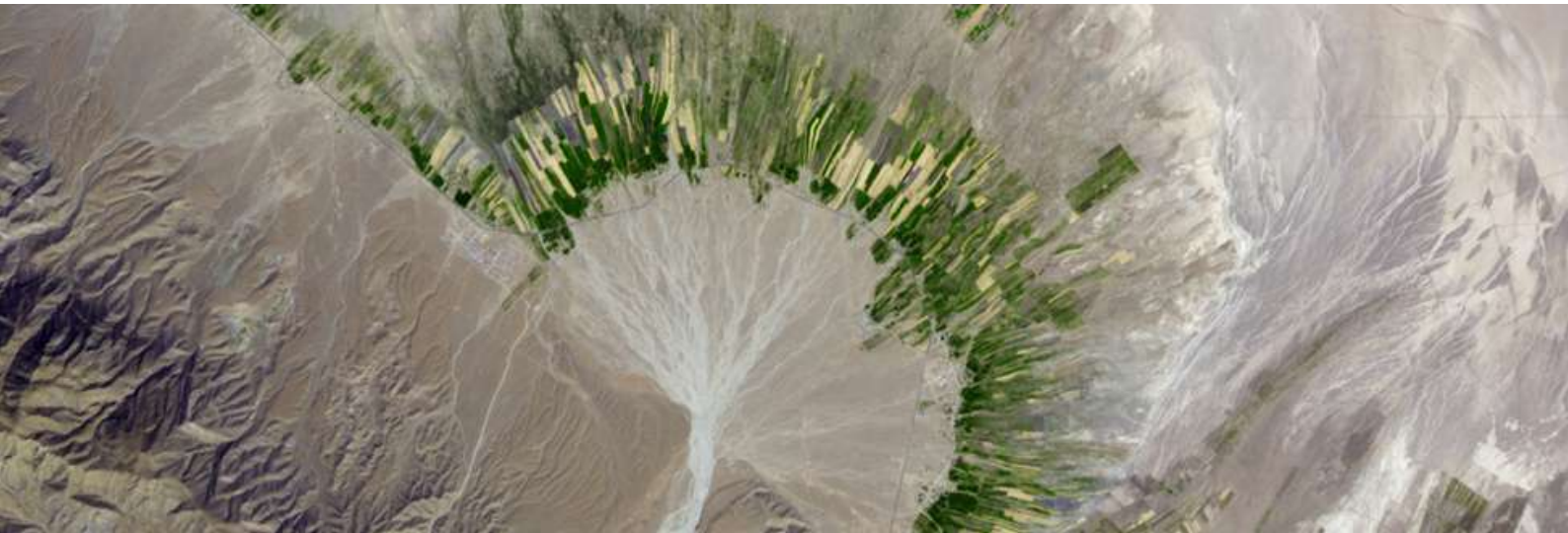
PROFESSOR: GARY PARKER - UNIVERSITY OF ILLINOIS

16TH NOVEMBER 2022:
2.30-5.30 pm
Meeting Room 1st floor,
DIATI Entrance 3

17TH NOVEMBER 2022:
2.30-5.30 pm
Multifunctional Room
Floor -1, DIATI Entrance 3

18TH NOVEMBER 2022:
2.30-5.30 pm
Meeting Room 1st floor,
DIATI Entrance 3

CONTENTS



PROFESSOR'S BIOGRAPHY

Gary Parker is a specialist in the field of river and deep-sea sediment morphodynamics. He works with theoretical, numerical and experimental techniques to explain such problems as why and how rivers meander, how rivers self-construct their own channels, how rivers sort sediment, how turbidity currents run out long distances in the ocean and how they excavate submarine canyons. Gary Parker's essential interest concerns how the flow of water and the transport of sediment interact to create patterns, indeed often highly appealing ones, in nature. These patterns include deltas, continental shelves, dendritic drainage networks, river meandering and braiding, submarine canyons, patterns of sediment sorting, cyclic steps in alluvial and bedrock rivers, as well as the deep sea, dispersal of tracer stones, formation of channel-floodplain complexes, deep-sea minibasin sedimentation and turbidity current dynamics. Applications include delta rehabilitation, design of mine waste disposal plans, reservoir sedimentation, riverbank protection, restoration of streams for salmonid spawning, dam removal and floodwater extraction. Parker's tools are primarily theoretical, numerical and experimental. He partners with experts in field research to add this essential component. Parker has strong international research connections, in particular to Japan, Italy, the Netherlands and China. His research has been enriched by interaction with researchers from diverse fields and countries.