



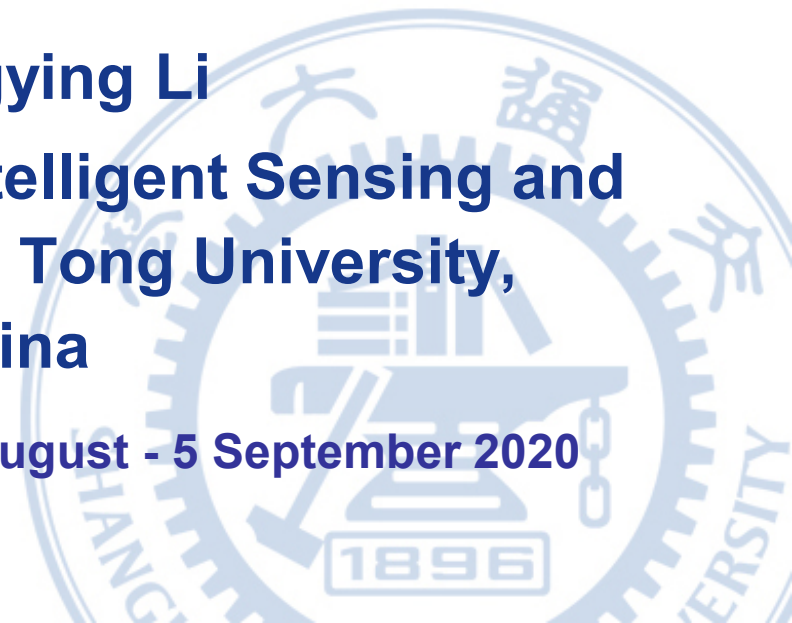
Scattering Modeling for Complex Radar Target based on Space Mapping Technique

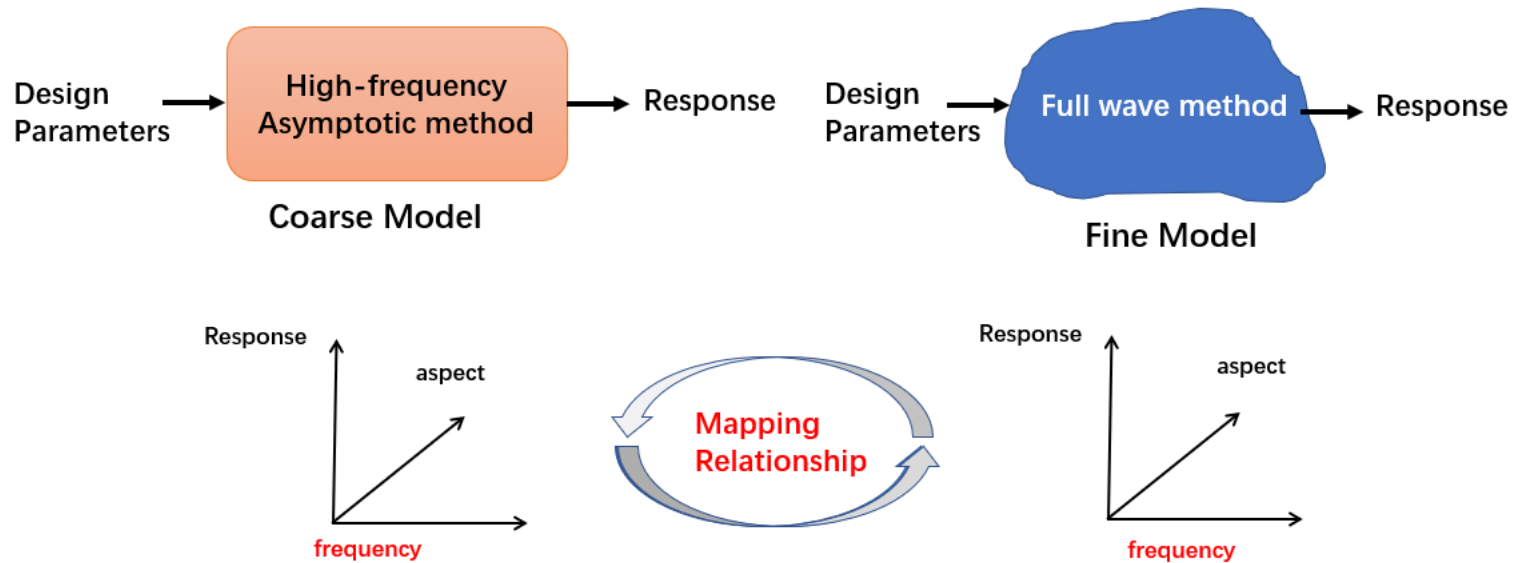
Tianxu Yan

Supervisor: Dongying Li

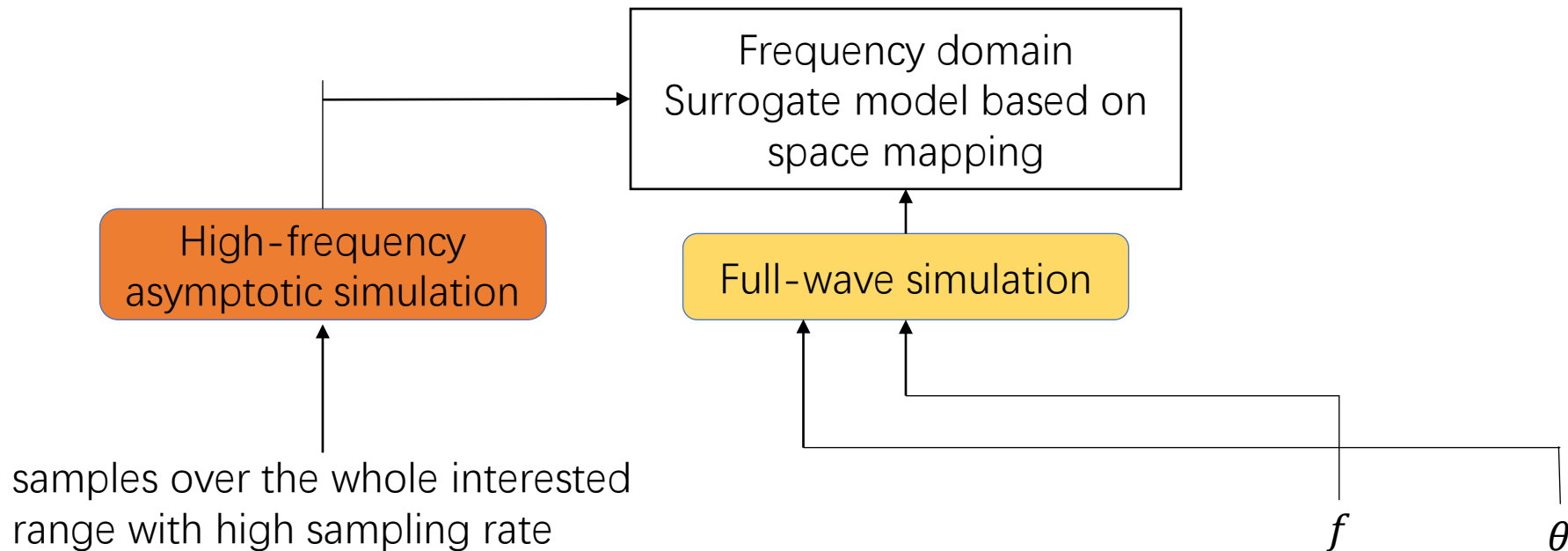
Shanghai Key Laboratory of Intelligent Sensing and
Recognition, Shanghai Jiao Tong University,
Shanghai, China

URSI GASS 2020, Rome, Italy, 29 August - 5 September 2020

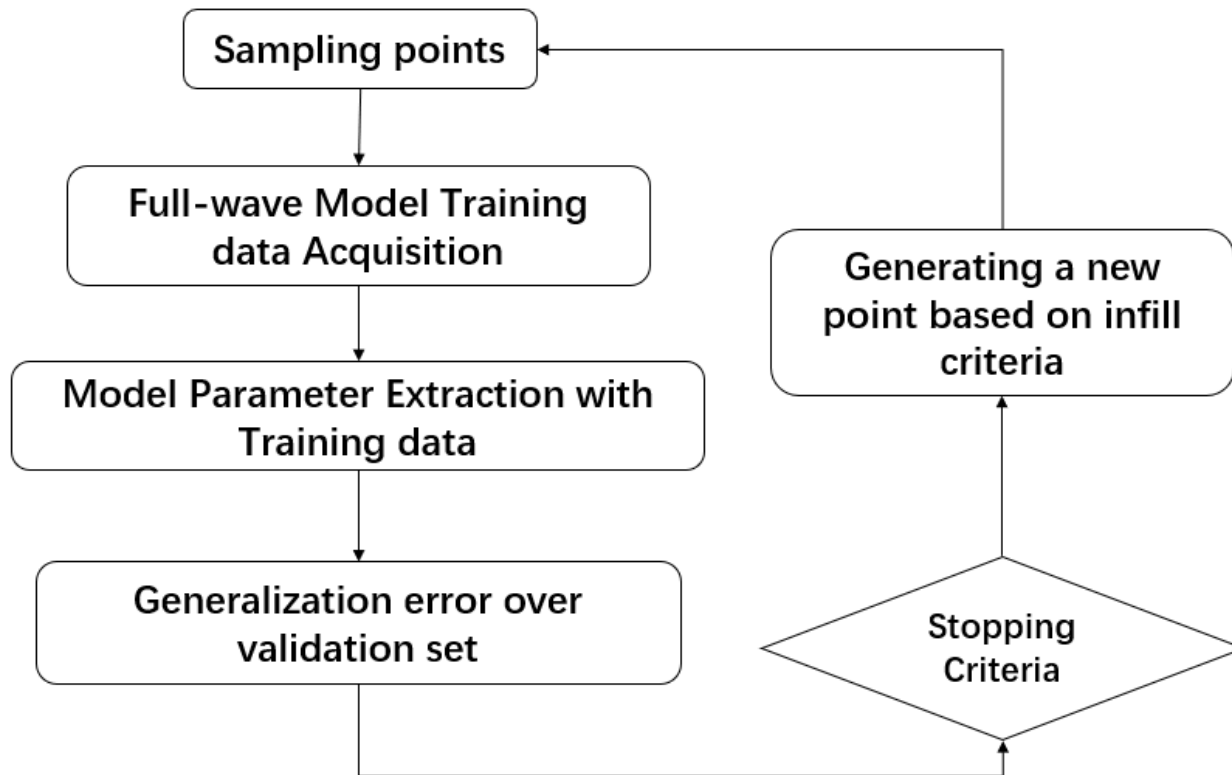




Space mapping is used to combine the efficiency of high frequency asymptotic method and accuracy of full wave method

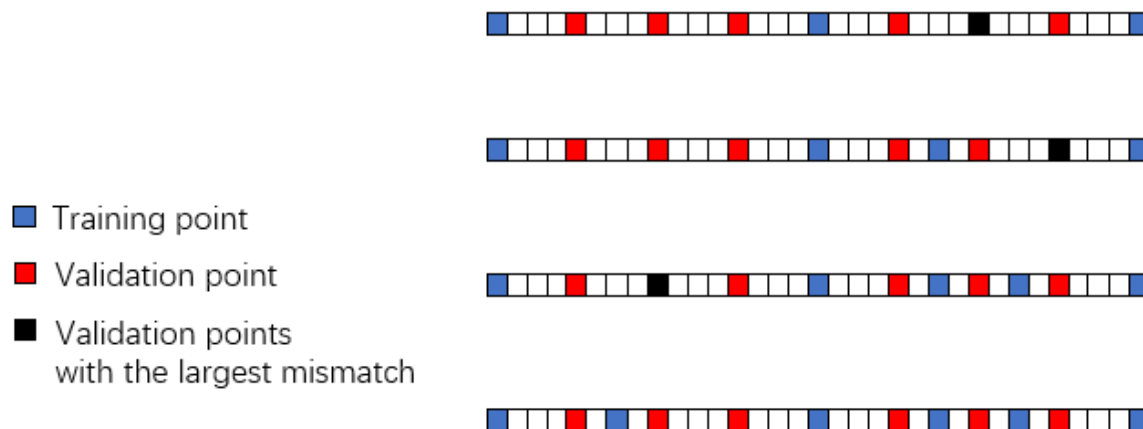


The flowchart of the proposed method



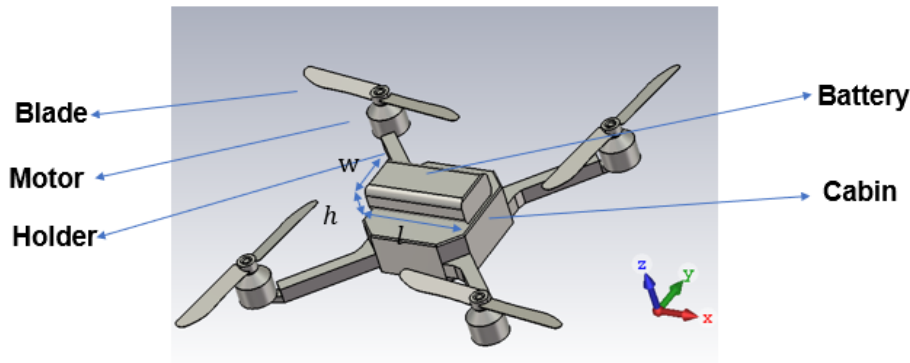
The training strategy for the proposed surrogate model based on space mapping in frequency domain

Design of Experiment

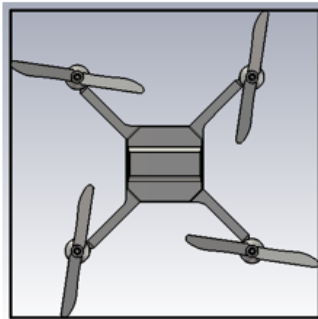


*Infilling
training
points
Iteratively*

The sketch map of the iterative infilling criteria



(a)

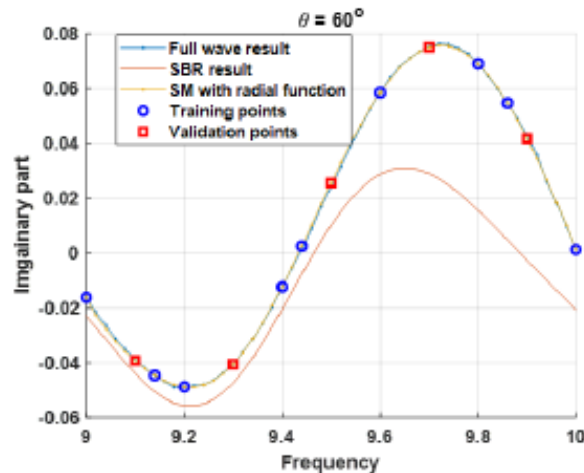
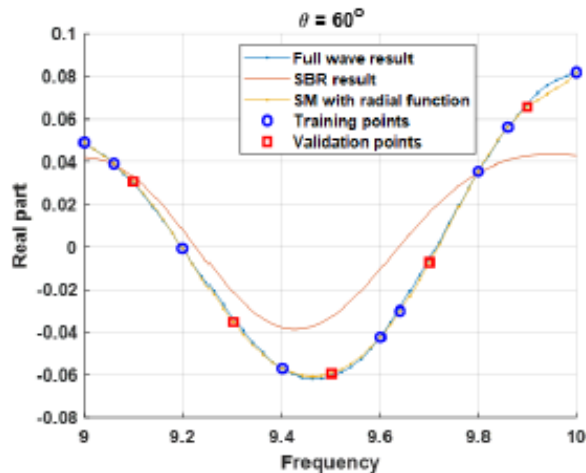
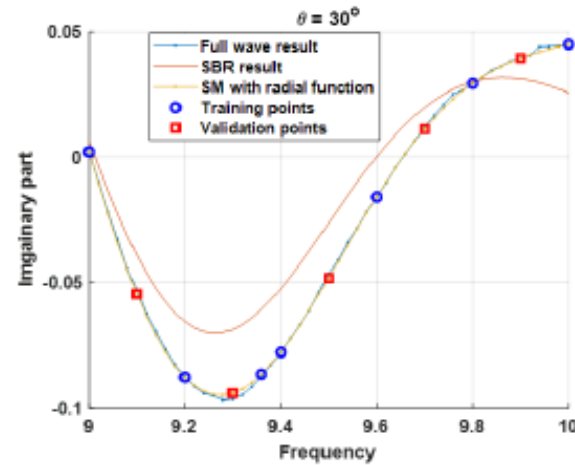
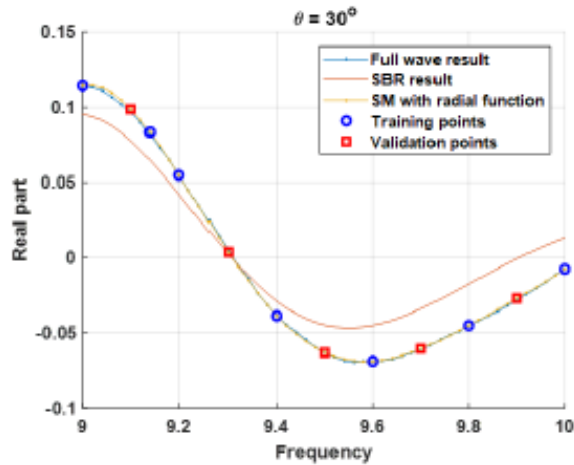


(b)



(c)

The solid model of complex radar target, the top is the perspective view, the bottom two figures are the top view and side view, respectively



The real part and imaginary part of the proposed surrogate model based on space mapping in frequency domain



上海交通大學
SHANGHAI JIAO TONG UNIVERSITY

Thanks!
