A WISE bibliography on ocean waves

Why a WISE bib?

Following the 10-year anniversary of the WAM Book (Komen et al. 1994), a white paper on research on ocean wave forecasting and hindcasting was launched by Luigi Cavaleri as a collaborative effort of the Waves In Shallow Environments group (WISE). In the process, it became clear that the wide array of publications on wave-related topics should be reviewed and old or not-so-old ideas reconsidered. Here is thus an attempt to inventory these publications.

This effort may appear crazy and unnecessary to many, with the advent of specialized search engines. However, these use indices such as the number of citations which may not be able to highlight the really good stuff that nobody has read nor cited. The following good old "manual" bibliography will hopefully be helpful to colleagues that work on wave-related topics. The entries are sorted by topic and then sorted by date of publication. A single entry should be listed under different topics when appropriate.

You can send your own contributions with a bibliography in bibtex format to ardhuin(at)shom.fr. If you know of URLs where papers and reports are openly available on the Internet, please send them so that the papers may be accessible at a single click from this PDF document. The Oceanographical Society of Japan and the American Meteorological Society are commended for their efforts to have all the "old" papers available to the general public at no cost.

How to use the WISE bib ?

Having grown over 2000 papers, with some items (such as bottom reflection and scattering) listing over 100, it seemed that items should be split or more important papers be highlighted. While the former would lead to a larger fragmentation in sub-specialties, the latter introduces a personal judgment and potential for endless rows with colleagues. (Why is my paper less important than this one?). I will take that risk for now, and have thus chosen to **highlight in bold** a few landmark and review papers that may be used as introduction to any sub-field. Suggestions are welcome.

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1 General

- Relevant books and reviews [1], [2], [3], [4], [5], [6], [7], [8], [9], [10], [11], [12], [13], [14], [15], [16], [17], [18], [19], [20], [21], [22], [23], [24], [25], [26], [27], [28], [29], [30], [31], [32], [33], [34], [35], [36], [37], [38]

- popular science texts [39]
- Historical accounts on wave research [40], [41], [42], [43]
- a. Wave integral properties (energy, momentum, action, spin ...) and variational principles [44], [45], [46], [47], [48], [49], [50], [51], [52], [53], [54], [55], [56], [57], [58], [59], [60], [61], [62], [63], [64], [65], [66], [67]
- b. Wave kinematics (theory and verification) [68], [69], [70], [71], [72], [73], [74], [75], **[76]**, [77], [78], [79], [80], [81], [82], [83], [84], [85], **[86]**, [87], [88], [89], [90], [91], [92], [93], [94], [95], [96], [97]
- c. Finite amplitude waves [72]
- d. non-Stokes waves [69], [98], [99]
- e. Dispersion relation [100], [71], [101], [102], [103], [104], [105], [106], [107], [108],[109], [110], [111], [112], [113], [114], [115], [116], [117], [118], [119], [120], [121], [122]
- f. Wave caustics [123], [124], [125], [126]
- g. Mass and momentum of waves and currents and their interactions (general) [127], [48], [49], [128], [129], [130], [131], [132], [133], [134], [135], [136], [9], [137], [138], [139], [140], [141], [142], [142], [143], [144], [145], [146], [147], [148], [149], [150], [151], [152], [153], [154], [155], [156], [157], [158], [159], [160], [161], [162], [163], [164], [165], [166], [167], [168], [169], [170], [171], [172], [173], [174], [175], [176], [177], [178]
- h. Wave transport equations [179], [142], [180]
- i. Practical calculation of wave properties [181], [182], [183], [184]
- j. Well-posedness of the wave equations [185]

2 Interaction of waves with the atmosphere

- a. Relevant turbulence theory [186], [187], [188], [189], [190], [191], [192], [193], [194], [195], [196], [197], [198], [199], [200], [201], [202], [202], [203], [204], [205], [206], [207], [208]
- b. Air-sea interactions: atmospheric boundary layer theory and wind profiles [209], [210], [211], [212], [213], [214], [215], [216], [217], [218], [219], [220]

- c. Air-sea interactions: wind stress [221], [222], [135], [223], [224], [225], [226], [227], [228], [229], [230], [231], [232], [233], [234], [235], [236], [237], [238], [239], [240], [241], [242], [243], [244], [245], [246], [247], [248], [249], [250], [251], [252], [153], [253], [254], [255], [256], [257], [258], [259], [260], [261], [262] [263], [264], [265], [266], [267], [266], [268], [269], [270], [271], [272], [273], [274], [275], [276], [277], [278], [279], [280], [281], [282], [283], [284], [285], [286], [287], [288], [289], [290], [291]

- c. Air-sea interactions: wind stress at high winds [292], [293], [294], [295], [296]

- d. Air flow separation above waves [224], [297], [298]

- e. Waves and rain [299], [300]

- f. wind-wave generation and attenuation theories [301], [302], [303], [304], [305], [306], [307], [308], [309], [310], [311], [312], [313], [314], [315], [316], [317], [318], [319], [320], [321], [322], [323], [324], [325], [326], [327], [328], [329], [330], [331], [332], [333], [334], [335], [336], [337], [338], [339], [340], [341], [342], [343], [344], [345], [346], [347], **[348]**, [349], [350], [351], [352], [353], [354], [355], [36]

- g. wind stress modulation by long waves [356], [357], [358], [359], [360], [361], [362]

- h. numerical modeling of wind-wave coupling [363], [364], [365], [366], [367], [368], [369], [370], [338], [371], [372], [373], [374], [375], [376], [377], [378], [379], [380], [381]

- i. Observations of wind-wave interaction [382], [383], [384], [385], [386], [387], [388], [389], [390], [391], [392], [393], [394], [395], [396], [397], [398], [375], [254], [298], [399], [400], [401], [402], [403], [404], [405], [406], [407], [408]

- j. Negative wind input [383], [263], [275], [277]

- k. Wind input parameterization [409], [410], [411], [412], [413], [414], [36]

- l. Air-sea interactions: sea state and heat fluxes [415], [416], [417], [418], [419]

- m. Spray [420], [421]

- n. Gas exchange [422], [423], [424]

3 Wave-wave interactions

- Short wave - long wave modulation [425], [426], [134], [427], [428], [357], [429], [430], [431], [432], [433], [434], [435], [436], [89], [359], [437], [438], [439], [440] [441], [442], [443], [149], [360], [444], [445], [446], [447], [448], [449], [450], [451], [452], [453]

- Capillary waves interaction with gravity waves [454] [455], [456], [457]

- 4 and 5 wave interactions theory **[458]**, [459], [47], [460], [461], [462], [463], [464], **[465]**, [466], [467], [468], [456], **[469]**, [470], [471], [472], [473], [474], [475], [476], [477], [41], [478], [479], [480], [481], [482], [483], [484], [485], [486], [487], [36], [488], [489]

- horseshoe and other 2D wave patterns [490], [491], [492], [493], [494], [495], [496], [497]

- four wave interactions numerical calculations and parameterization [498], [499], [500], [501], [502], [503], [504], [505], [506], [507], [508], [509], [510], [511], [512], [513], [514], [515], [516], [517], [518], [519], [520], [521], [522], [523], [524], [525], [526], [527], [528], [529], [530], [531], [532], [533], [**?**]

- "wave" or "weak" turbulence [534], [535]

- Wave instabilities [536], [537], [538], [539], [540], [541], [542], [543], [544], [545], [546], [547], [546], [548], [549], [550], [551], [552], [553], [554], [555], [36], [556], [557]

- other instabilities [558], [559]

- 3-wave interactions and nonlinear shoaling [560], [456], [561], [562], [563], [564], [565], [566], [567], [568], [569], [570], [567], [571], [572], [573], [574], [575], [576], [577], [578], [579], [580], [581], [582], [583], [584], [585], [586], [587], [588], [589], [590], [591], [592], [593], [594], [595], [596]

4 Nonlinear wave models

- Nonlinear shallow water and others [597], [598]

- Solutions to Euler's equations (irrotational flow) [599], [600], [601]

- Zakharov equation [602], [603], [604], [605], [606], [607], [608], [36], [609], [610], [488]
- Time-domain Boussinesq and Serre equations [561], [611], [612], [613], [614], [615], [616], [617], [618], [619], [620]
- Multi-layer Boussinesq [621]
- KdV and KP equations and solutions [622], [623], [624], [625], [597], [626], [627], [628], [629], [630], [631], [632], [633], [634], [635], [636], [637], [638], [639], [640], [641]
- nonlinear Schrödinger equation and solutions [642], [643], [548], [644], [645], [646], [647], [648], [649], [650]
- higher order spectral methods [651], [652]

5 Interaction of waves with the upper ocean

- Waves and the Ekman layer [653], [654], [655], [656], [137], [657], [658], [659], [660], [661], [662], [663], [664], [665], [666], [667], [668], [669], [670], [671], [672], [673], [674], [675], [676], [677], [678], [679], [680], [681], [682], [683], [684], [685], [686], [687], [688], [689], [690], [691], [692], [693], [694]
- Wave effects on the global ocean [157], [695], [696], [697]
- Surface drift [698], [699], [700], [701], [702], [703], [704], [428], [705], [706], [707], [708], [709], [710], [711], [712], [713], [714], [715], [716], [717], [718], [719], [720], [721], [722],[723], [724], [725], [726], [727], [728], [729], [730], [731], [732], [733], [734], [735], [736], [737], [738], [739], [362], [682], [740], [741], [683], [742], [743], [744], [745], [689], [746], [747], [690], [694]
- Viscous layer [748], [749], [750], [362]
- Waves on vertically sheared currents [751], [752], [102], [753], [754], [755], [756], [757], [758], [759], [760], [761], [762], [763], [764], [765], [766], [767], [768], [769], [770], [771], [772], [169]
- Waves in non-homogeneous media [537], [773], [774], [775], [106], [107], [776], [777], [778], [554], [35]

- Waves in random media [779], [780], [781], [782], [783], [784], [785], [180], [786], [787], [788], [789]

- Waves and surges or tidal elevations [790], [791], [792], [793], [794], [795], [796], [797]

- Waves on horizontally varying currents [798], [799], [800], [801], [802], [803], [804], [805], [806], [807], [808], [809], [56], [810], **[811]**, [812], [813], [814], [815], [816], [817], [791], [818], [819], [820], [821], [822], [784], [823], [824], [825], [826], [827], [828], [829], [830], [831], [832], [833], [834], [835], [836], [837], [838], [839], [840], [796], [841], [842], [843], [844], [845], **[785]**, [846], [847], [848], [849], [850], [851], [852], [853], [770], [854], [855], [856], [857], [858], [859], [860], [861], [862], [863], [864], [865], [866], [867], [868]

- Wave blocking [869], [836], [870], [851], [871], [872], [873], [874]

- Radiation and wave-induced stresses **[875]**, [876], [877], [878] [142], **[811]**, [879], [880], [881], [882], **[883]**, [884], [885], [886], [887], [165], [888], [889], [890], **[169]**, [172], [891], [892], [893], [894], [895], [178], [896], [897], [898], [899]

- Mass transport and wave boundary layers (streaming) [900], [901], [902], [903], [904], [905], [906], [907], [905], [908], [909], [910], [911], [659], [912], [913], [914], [915], [916], [917], [918], [919], [920]

- deep-water wave breaking: kinematics and statistics [921], [922], [923], [924], [925], [926], [927], [928], [929], [930], [931], [932], [933], [934], [935], [936], [722], [937], [938], [939], [940], [941], [942], [943], [944], [945], [946], [947], [948], [949], [950], [951], [952] [953], [954], [955], [956], [957], [958], [959], [960], [961], [962], [963]

- deep-water wave breaking: instabilities, thresholds and breaking criteria [964], **[922]**, [965], [966], [428], [967], [968], [969], [970], [971], [972], [973], [89], [974], [975], [975], [297], [976], [946], [977], [978], [979], [980], [981], [982], [983], [984], [985], [986], [987], [988]

- microscale breaking [989], [990], [991]

- breaking and energy dissipation [928], [932], [992], [993], [994], [995], [996], [997]

- Wave breaking and frequency downshift [553]

- wave breaking and bubbles [998], [999], [1000], [1001], [1002], [1003], [1004], [1005], [1006], [1007], [1008], [1009], [1010], [1011], [1012], [1013]

- breaking probability, whitecaps and breaking crests coverage [1014], [1015], [1016], [973], [1017], [1018], [953], [1019], [1020], [1021], [1022], [1023], [1024], [1025]

- Spectral signature of breaking waves [1026], [1027]

- deep-water wave breaking parameterizations [1028], [1029], [826], [1030], [1031], [413], [1032], [1033], [1034], [1035], [1036], [1037], [1038], [984], [1039], [1040], [1041], [1042], [1027], [1043], [1044], [1045], [1046], [1047], [1048]

- observations of surface mixing and theory [1049], [1050], [1051], [1052], [1053], [1054], [1055], [1056], [1057], [1058], [1059], [1060], [1061], [1062], [1063], [1064], [1065], [1066], [1067], [1068], [1069], [1070], [1071], [1072], [248], [1073], [1074], [1075], [1076], [1077], [1078], [1079], [1080], [1081], [1082], [1083], [1084], [1085], [1086], [1087], [1088], [1089], [1090], [1091], [1092], [1093], [1094]

- Parameterization of surface mixing in the ocean (see also www.gotm.net) [1095], [1096], [1097], [1098], [1099], [1100], [1101], [1102], [1103], [1104], [1105], [1106], [1107], [1108], [1073], [1109], [1110], [1111], [1112], [1080], [1113], [1114], [1115], [1116], [1117], [1118], [1119], [1120], [1121], [1122], [1123], [1124], [1087], [1125], [1126], [1127], [1128], [1129], [1130], [1131], [1132], [1133], [1134], [1135], [1136]

- Langmuir circulations [1137], [1138], [1139], [1140], [1141], [1142], [1143], [1144], [1145], [1146], [1147], [1148], [1149], [1150], [1151], [913], [1152], , [1153], [1154], [1155], [1156], [1157], [1106], [1158], [1159], [1160], [1161], [1162], [1163], [1164], [1165], [1166], [1167], [1168], [1169] [1170], [1171], [1172], [1173], [1083], [1174], [1175], [1176], [1177], [1178], [1179], [1180], [1181], [1182], [1183]

- Wave-turbulence interactions and turbulence statistics [1184], [1185], [1186], [1187], [1188], [1189], [1190], [1191], [1192], [1193], [1194], [1195], [1196], [336], [1197], [1198], [1199], [1200], [1201], [1202], [1203], [1204], [1205], [1206], [1207], [859], [1208], [1209], [1210], [1211], [1092]

- Tracer diffusion [1212], [1213], [1214], [1215], [1216], [916], [1217]

- surface waves - internal waves interactions [1218], [1219], [1220], [1221], [1222], [1223], [1224], [149], [1225], [1226], [1227], [1228], [1229], [1230], [1231]
- acoustic reverberation and sound generation by breaking waves [1232], [1233], [1234], [1235], [1236], [1237], [1238]
- waves and ocean optics [1239]

6 Interaction of waves with floating objects

- Damping of waves by viscosity and surface films [455], [1240], [702], [1241], [1242], [1200], [1243], [1244]
- oil dispersion and drift [1062], [724], [1245], [1246]
- Waves and sea ice or ice caps [1247], [1248], [1249], [1250], [1251], [1252], [1253], [1254], [1255], [1256], [1257], [1258], [1259], [1260], [1261], [35], [1262], [1263], [1264]

7 Interaction of waves with submerged objects

[1265], [1266]

8 Interaction of waves with surface-piercing obstacles

- engineering [1267], [1268], [1269], [1270], [1271], [1223], [1272], [1273], [1274]

9 Interaction of waves with the bottom

- steady bottom boundary layer [1275], [1276]
- wave bottom boundary layer [1277], [1278], [904], [1279], [1280], [1281], [1282], [1283], [1284], [1285], [1286], [1287], [1288], [1289], [1290], [1291], [1292], [1293], [1294], [1295], [201], [1296], [1297], [1298], [1299], [1300], [1301], [1302], [1303], [1304], [1305], [1306], [1307], [1304], [1308], [1309],

[1310], [1311], [1312], [1313], [1314], [1315], [1316], [1317], [1318], [1319], [1320], [1321], [1322], [1323], [1324], [1325], [1326], [1327], [1328], [1329], [1330], [1331], [1332], [1333], [1334], [1335], [1336], [1337], [1338], [1339], [1340], [1341], [1342], [1343], [1344], [1345], [1346]

- bottom friction and spectral wave dissipation (over sand or general) [1347], [1348], [1349], [1350], [1351], [1352], [1353], [1354], [1355], [565], [1356], [1357], [1312], [1313], [1358], [1359], [1360], [1361], [1362], [1363], [1364], [1365], [1366], [1367], [1368], [1338], [1369], [1370], [1371], [1372], [1373], [1374], [1090], [1375], [1376], [1377]

- wave-current bottom boundary layers [1289], [812], [1378], [1298], [1379], [1380], [1381], [1382], [1383], [1384], [1385], [1386], [1387], [1333], [1388], [1389], [1390], [1391], [1392], [1393]

- wave attenuation within a submerged canopy and interaction with kelp [1239], [1394], [1395], [1396], [1397]

- pore water flow [1398], [1399]

- bottom friction and spectral wave dissipation over mud [1400], [1401], [1402], [1403]

- sand ripples [1404], [1405], [1406], [1407], [1408], [1409], [1410], [1411], [1412], [1413], [1414], [1415], [1416], [1293], [1417], [1418], [1419], [1420], [1421], [1422], [1423], [1424], [1425], [1426], [1427], [1428], [1429], [1430], [1431], [1432], [1433], [1434], [1435], [1436], [1437], [1438], [1439], [1440], [1441], [1442], [1443], [1444], [1388], [1445], [1446], [1447], [1448], [1449], [1450], [1451], [1452], [1453], [1454], [1455], [1456], [1457], [1458]

- wave refraction [1459], [1460], [1461], [1462], [1463], [1464], [1465], [1466], [1467], [1468], [124], [1469], [1470], [1471], [1472], [1473], [1474], [1475], [1476], [121]

- Wave diffraction [1268], [1477], [1478], [1479], [1480]

- Wave propagation equations (Berkhoff and others) [1481], [1269], [597], [1482], [1483], [1484], [1485], [1486], [1487], [1488], [1489], [1490], [1491], [1492], [1493], [1494], [1495], [1496], [1497], [1498], [1499], [1500], [1501], [1502], [1503], [1504], [1505], [1506], [1507], [1508], [1509], [1510], [1511], [1512], [1513], [1514], [1515], [1516], [1517], [1518], [1519], [1520], [1521], [1522], [1523], [1524]

- Bottom reflection and scattering [1525], [1526], [1527], [470], [1528], [1529], [1530], [782], [1531], [1532], [1533], [1534], [1535], [1536], [1537], [1538], [1539], [1540], [1541], [1486], [1542], [1543], [1485], [1544], [1545], [1546], [1547], [1472], [1548], [1549], [1550], [1551], [1552], [1553], [1554], [1555], [833], [1556], [1557], [1558], [632], [1559], [1560], [1561], [1562], [1563], [1564], [1565], [1566], [1567], [1568], [1569], [1500], [1570], [1571], [1572], [1573], [1574], [1575], [1576], [1577], [1225], [1578], [1508], [1579], [1580], [1581], [1582], [1583], [589], [1584], [1585], [1586], [1587], [1513], [1588], [1589], [1518], [1590], [788], [1591], [1592], [1593], [1369], [1370], [1594], [1595], [1596], [1597], [1598], [1599], [1600], [1601], [1602], [1603], [1523], [1604], [1605], [1606], [789], [1607], [1608], [1609]
- Wave-induced mean forces on the bottom [1610], [877], [1611], [1612], [1374], [177]
- Microseisms [1613], [1614], [1615], [1616], [1617], [1618], [1619], [1620]
- Earth's hum and IG waves [1621]
- Bottom topography *per se* and coastline [1622], [1623], [1624], [1625]
- Sandwaves [1626], [1627], [1628], [1629], [1630], [1631], [1632], [1458], [1633]

10 Wave statistics outside the surf zone

- Wave and crest heights, wave periods [1634], [1635], [1636], [1637], [1638], [1639], [1640], [1641], [1642], [1643], [1644], [1645], [1646], [1647], [1648], '[1649], [1650], [1651], [1652], [936], [1653], [1654], [1655], [1656], [1657], [1658], [1659], [1660], [1661], [1662], [1663], [1664], [1665], [1666], [1667]
- Wave groups [1668], [1669], [1670], [1671], [1672]
- Crest length [1464]
- Very high waves [1673]
- Freak waves [1674], [850], [126], [1675], [1676], [1677], [1678], [1663], [1679], [1680], [1681], [1682], [1683], [1684], [1685]
- Statistics of other wave properties [1686], [1687], **[1688]**, [1688]
- long-term statistics [1689], [1655]

11 Wave spectral shape and evolution

- Fully developed waves [1690], [1691], [1692], [1693], [1694],[1695], [1696], [1697], [1698], [1699]
- Observations of wind-wave growth with fetch [1460], [1700], [1701], [1702], [1703], [1704], [1705], [1706], [1707], [1708], [1709], [1710], [1350], [1711], [1712], [1713], [1714], [1715], [1716], [1717], [1718], [1719], [1720], [1721], [1722], [1723], [1724], [1725], [1726], [1727], [1728], [1729], [1730], [1731], [1732], [1733], [1734], [1735], [1736], [1737], [1738], [1739], [1740], [1741], [1742], [1743], [1744], [1745], [1746], [1747], [1748], [1749], [1750], [1751], [1752], [1753], [1754]
- slanting fetch [1737], [1730], [1751], [1755], [1754]
- Swell evolution [1756], [1757], [1758], [1759], [1760], [1761], [395], [1762], [1717], [509], [1763], [42], [1764], [1765], [1766]
- time-limited growth [1767], [1768], [1769], [1770], [1771]
- waves in turning winds [1772], [1773], [1774], [507], [1775], [512], [1776], [1777], [1778], [1779]
- Wind sea in the presence of swell [1780], [1781], [1731], [400], [1782], [1783], [1754]
- Spectral shape: peak and low frequency cut-off [1784]
- Spectral shape: inertial range and saturation [1690], [1785], [1691], [1786], [1694], [1787], [1788], [1711], [1789], [1790], [1791], [1792], [1793], [1794], [1795], [1796], [1797], [1798], [1799], [1800], [1801], [1802], [1803], [1804], [351], [1805], [1806], [1807], [1808]
- Spectral shape: High frequency / wavenumber tail and surface slopes [1809], [1810], [1705], [1811], [114], [1812], [1813], [1814], [1815], [1816], [1817], [1818], [1818], [1819], [1820], [1821], [1822], [1823], [1824], [1825], [1826], [1827], [1828], [260], [1829], [1830], [1831], [1832], [1833], [1834]
- Hurricane winds and waves [1835], [1836], [1837], [1838], [1839], [1840], [1841], [1842], [1843], [1844], [1845], [1846], [1847], [1848], [1849], [1850], [1851], [1852], [1853], [1854], [1855], [1856], [1857], [1858], [1859], [1860], [1861]

- Global or basin-scale wave climate [1862], [1863], [1864], [1865], [1866], [1867], [1868], [1617], [1869], [1870], [1871], [1872], [1873], [1874], [1875], [1876]
- regional wave climate [1877], [1878], [1879], [1880], [1881]

12 Nearshore hydrodynamics and morphodynamics

- Nearshore waves and breaking [1882], [922],[1883], [1884], [1885], [1886], [1887], [1888], [1889], [1890], [1891], [1892], [1893], [1894], [1895], [1896], [1897], [1898], [1899], [1900], [1901], [1902], [1903], [1904], [579], [1905], [1906], [1907], [1908], [1909], [1910], [1911], [1912], [1913], [1914], [591], [1915], [1916], [1917], [1918]
- wave statistics [1919], [1900], [1920], [1907], [1921]
- Wave reflection from shore [1922], [1923], [1924], [1759], [1470], [1925], [1926], [1927], [1928]
- nearshore turbulence [1929], [1901], [1930], [1931]
- Infra-gravity waves [1932], [1933], [1934], [1935], [1936], [1937], [1938], [1545], [1939], [1940], [1941], [1942], [1943], [1944], [1945], [1946], [1947], [1948], [1949], [1950], [1951], [1952], [1953], [1954], [1955], [1956], [1957], [1958], [609], [1959], [1960], [1961]
- Run-up [1923], [1467], [1962] ,[1963], [888], [1964], [1965], [1966]
- Wave set-down and set-up [790], [1967], [1968], [1969], [1610], [1970], [1971], [1972], [877], [140], [1973], [1974], [1895], [1975], [1976], [1977], [1978], [67], [1979], [1980], [1981], [1982], [1983], [1984], [171], [1985], [1374], [177], [1986]
- Nearshore circulation (general) [1987], **[1988]**, [1989], [1919], [1990], [1897], [1991], [1992], [1993], [1994], **[1995]**, **[1996]**, [1997], [1998], [1999], [2000], [2001], [2002], [2003], [2004], [2005], [2006], [2007], [1978], [2008], [2009], [2010], [2011], [2012], [2013], [2014], [2015], [2016], [2017], [2018], [2019], [2020], [2021], [2022], [2023], [2024], [1984], [2025], [2026], [2027], [2028], [2029], [2030], [2031], [2032], [2033]
- vertical velocity profiles and undertow [2003], [2034], [2016], [2035], [2036]

- Rip currents [822], [2037], [2038], [2039], [2040], [2041], [2042] ,[2043]
- Surf zone macro-vortices [2044], [2045], [2046], [2047]
- Swash [2048], [1944], [2049], [2050]
- Bio-mecanics of nearshore benthic organisms [2051], [2052], [2053], [2054], [2055]
- Nearshore sediment transport [2056]
- Nearshore morphodynamics [2057], [2058], [2005], [2059], [2060], [2061], [2062], [2063], [2064], [2065], [2066], [2067], [2068], [2069], [2070], [2071], [2072], [2073], [2074], [2075]
- Multiple sand bars [2076], [1940], [2077], [2078], [1585], [2079]
- Waves over coral reefs [2080], [1980], [2081], [741]
- Morphodynamics of cyclopean blocks [2082], [2083]

13 Wave and nearshore forecasting

- Wind forecasting and analysis methods [2084]
- Wave forecasting methods [1460], [2085], [2086], [2087], [2088], [2089], [2090], [2091], [2092], [2093], [2094], [2095], [2096], [2097]
- Numerical wave forecasting based moments or 1D spectra [2098], [2099]
- Numerical wave forecasting based on energy balance (development) [2100], [2101], [2102], [2103], [2104], [2105], [2106], [2107], [2108], [2109], [2110], [2111], [2112], [2113], [2114], [2115], [2116], [2117], [2118], [2119], [2120], [2121], [409], [2122], [2123], [2124], [2125], [2126], [2127], [2128], [2129], [2130], [2131], [2132], [413], [2133], [2134], [2135], [586], [2136], [2137], [2138], [2139], [1590], [1367], [2140], [2141], [2142], [35], [1479], [2143], [37], [2144]
- Source term balance [1029], [413], [2145] [2146], [2147]
- Numerics for hyperbolic problems and transport equations [2148], [2149], [2150], [2151], [2152], [2153], [2154], [2155]

- energy balance modelling: numerics [2156], [2157], [2158], [2145], [2159], [2160], [2161], [2162], [2163], [2164], [2165], [2166], [2167], [2168], [2169], [2170], [35], [2171], [2172], [2173], [2174], [2175], [2176], [2177], [2178], [2179]
- enegy balance modelling: parallelization and code performance [2169], [2180]
- Data assimilation (general) [2181], [2182]
- Data assimilation in wave models [2183], [2184], [2185], [2186], [2187], [2188], [2189], [2190], [2191], [2192], [2193], [2194], [2195], [2196], [2197], [2198], [2199], [2200], [2201], [2202], [2203], [2204], [2205], [2206], [2207], [2208], [2209], [2210], [2211], [2212], [1376]
- Validation methods [2213], [2214]
- Validation of model winds [2215], [2216], [2213], [2217], [2218], [2219], [2220], [2221], [2222]
- Ice at sea for wave models [2223]
- Validation of wave models [2224], [2225], [2226], [2227], [2228], [2229], [2230], [2231], [2232], [2233], [2234], [2235], [2236], [1590], [2237], [2238], [2239], [2240], [2241], [2219], [1370], [2242], [36], [1475], [2243], [2244], [2245], [2246], [2247], [2248], [2249], [1754], [2250], [2142], [2251], [2252], [2253], [2254], [2255], [1048]
- Case studies in wave modelling [2256], [2257], [2258]
- Operational wave modelling [2259], [2260], [2261], [2233], [2262], [2239], [2263], [2237], [2171], [2219], [36], [2146]
- Coupled air-sea-waves modelling [1975], [2264], [2265], [2266], [2267], [2268], [2269], [2270], [2271], [2272], [2273], [2274], [2275], [2276], [857], [2277], [2278], [2279], [2280], [2281], [36], [2282]
- Nearshore circulation modelling [2283]

14 Other wave modelling applications

- suspended sediment concentration [2284]

15 Measurement techniques

- general wave observations [1655], [2285]
- stereo imagery [2286], [2287], [2288], [2289], [2290]
- in-situ wave measurement [2291], [1691], [2292], [2293], [2294], [2295], [2296], [2297], [2298], [2299], [2300], [2301], [2302], [2303], [2304], [2305], [2306], [1656], [2307], [2308], [2309], [2310], [2311]
- Time series and wave data analysis (general) [2312], [2313], [2314], [2315], [2316], [5], [2317], [2318], [2319], [2320], [2321], [2322], [2323], [2324], [2325], [2326], [2327], [2328], [786], [2329], [2330], [254], [2331], [2332], [2333], [2334], [2335], [2336]
- Estimation of the directional wave spectrum from point measurements [2337], [2338], [2339], [2340], [2341], [2342], [2343], [2344], [2345], [2346], [2347], [2348], [2349], [2350], [2351], [2352], [2333], [2336]
- Partitionning of directional wave spectra [2353], [2354], [2355], [2356]
- Bispectral analysis [2321], [2357], [2358], [2359]
- Estimation of wave reflection [2360], [2361], [2362]
- Photogrammetry [1690], [1691], [1722], [2363]
- Wave spectra from range measurements [2364]
- bathymetry and currents from wave remote sensing [2365], [2366], [2367], [2368], [2369], [2370], [2371], [2372], [2373]
- optical methods including surf zone video [2374], [2365], [2375], [2376], [2370], [2377], [2378]
- HF-VHF-UHF radar (grazing) [2379], [2380], [2381], [2382], [2383], [2384], [134], [2385], [2386], [2387], [2388], [2389], [2390], [2391], [2392], [2393], [2394], [2395], [2396], [2397], [2398], [2399], [2400], [2401], [2402], [2403], [2404], [2405], [2406], [2407], [2408], [2409], [2410], [2411], [2412], [2413], [2414], [2415], [2416], [2417], [2418], [2419], [2420], [2421]
- radar backscatter [2422], [2423], [2424], [2425], [1710], [2426], [2427], [2428], [1816], [2429], [1818], [2430], [2431], [2432], [2433], [2434], [992], [2435], [2436], [2437], [2438], [2439], [2440], [2441], [2442], [2443], [2444], [2445], [2446], [2447], [2448], [2449], [2450], [2451], [2452], [2453], [2454],

[2455], [2456], [2457], [2458], [1832], [2459], [2460], [2461], [2462], [2463], [2464], [2465], [2466], [2467], [2468], [2469], [2470], [995], [2471]

- radar modulations [2472], [2473], [359], [2474], [2475], [2476], [449]
- RAR [2477], [2478], [2479], [2480], [1739], [2310], [2212]
- Altimetry for wind and waves [2481], [2482], [2483], [2484], [1736], [2485], [2486], [2487], [2488], [2489], [2490], [2491], [2492], [2493], [2493], [1699], [2494], [2495], [2496], [2497], [2498], [2499]
- Altimetry sea-state bias [2500], [2501], [2502], [2501], [2503], [446], [2504], [2505], [2506], [2507], [2508], [2509], [2510], [2511]
- Scatterometry [2512], [2513], [1850], [2514], [278], [2515], [2516], [2517]
- Radiometry for winds [2518], [2519], [2520], [2521], [2522], [2523], [2524], [2525],
- SAR speckle over the ocean [2526], [2527]
- SAR and ocean features [2528], [2529], [2530], [2531], [2532], [2533], [2534], [2535], [2536], [2537], [2538], [2539], [2540], [2541], [2542], [2543], [862]
- SAR for wind and waves [2544], [2545], [2546], [2547], [2548], [821], [2549], [2550], [2551], [2552], [2553], [2554], [835], [2555], [2556], [2557], [2558], [2559], [2560], [2561], [2562], [2563], [2491], [2564], [2565], [2566], [1259], [2567], [2568], [2569], [2570], [2571], [2572],[2573], [2574], [2575], [2576], [2577] [2578]
- InSAR and microwave Doppler analysis [2579], [2580], [114]*, [2581], [2582], [117]*, [2583], [2584], [2585], [2586], [2587], [2557], [2588], [2558], [2589], [2590], [2591], [2592], [2593], [2594], [949], [2595], [2596], [2597], [2598], [2599], [2600], [2601], [2602], [2603], [2604], [2605], [2606], [2607], [2608]
- Radiometry and surface salinty [2609], [2610]
- X-band radar [847], [2611], [2612], [2613], [2614], [2615], [2616], [2617], [2618], [2607]
- GNSS reflections [2619], [2620]
- Atmospheric infrasound [2621]

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