**基于大数据的上海港气象灾害（强对流）风险预警及决策支持平台研发项目相关关键词**

**气象局希望通过知识图谱将强对流天气与下列领域关联，例如运用大数据支持港口强对流天气风险预警的前沿技术手段、相关资料论文及案例等。**

**强对流天气关键词：**

* 高空槽upper trough、副热带高压subtropical high、低压low pressure、中气旋mesocyclone、中涡旋mesoscale eddies/ mideddies、气旋cyclone、低涡vortex、边界层辐合线abl convergence line、切变线shear line、冷锋cold front、暖锋warm front、静止锋stationary front、海陆风land and sea breeze、城市热岛效应urban heat island effect
* 浓积云cumulus congestus、积雨云cumulonimbus、雷暴thunderstorm、超级单体supercell、中尺度对流系统mesoscale convective system、飑线squall line
* 雷雨大风thunderstorm gale、雷暴大风thunder-gust、暴雨torrential rain/rainstorm/heavy rain、短时强降水short-time heavy rainfall、冰雹hail、龙卷风tornado、雷击thunderstrike
* 水汽water vapor、软雹graupel/soft hail、冰晶ice crystal、过冷水supercooled water、雪花snowflake、雨滴raindrop
* 雷电thunder and lightning、地闪ground flashes/ grounddischarge
* 上升运动upward movement/ ascending motion、下沉运动descending motion、下击暴流downburst、阵风锋gust front、冷池cold pool/ cold drop、海风锋sea-breeze front、海水下垫面bottom surface of sea water
* 不稳定能量instability energy、垂直风切变vertical wind shear、风暴相对螺旋度storm-relative helicity、触发机制trigger mechanism

**气象预报关键词：**

短临预报short impending prediction、短时预报short-time forecast、影响预报impact forecast、数值预报numerical forecast、集合预报ensemble prediction

**气象预警关键词：**  
强对流天气风险预警risk warning of severe convective weather

**气象监测关键词：**

多普勒雷达doppler radar、双偏振雷达dual polarization radar

**气象服务关键词：**

气象数据开放open meteorological data

**海事**

**港口关键词：**

岸吊shore crane/ shore tackle、桥吊bridge crane、龙门吊gantry crane/ frame crane、沿海港口coastal harbor、港口岸线port shoreline、泊位berth、港口码头长度length of port pier、港口吞吐量port throughtput、集装箱container、标准箱standardizing box/ TEU、港池harbour basin、锚池anchor pool、货物操作量tonnage of cargo handled

**船舶关键词：**

船舷角angle of ship、排水量吨位displacement tonnage、载重吨位dead weight tonnage/DWT、船舶容积吨位volume tonnage of ship、船舶载重线ship load line、船舶排水量vessel displacement、杂货船break-bulk carrier、干散货船dry bulk carrier、冷藏船refrigerated carrier、木材船lumber cargo ship、集装箱船container ship、滚装船roll-on-roll-off ship、载驳船barge carrier /lighter aboard ship/LASH、油槽船tanker、进出境船舶entry and exit vessel、远洋船舶ocean vessel、小型船舶small craft、兼营船舶concurrently ship、外籍船舶foreign ship、内航船舶inland navigation vessel、远洋运输ocean transportation、近洋运输short-range ocean transportation、沿海运输coastal traffic、海上运输maritime transport、内河运输inland water transport、国际航线international service

**大数据关键词：**

机器学习machine learning、深度学习deep learning、神经网络neural network、etc