

DAFTAR ISI

| | | |
|---|---|----------|
| | PERNYATAAN KEASLIAN SKRIPSI DAN BEBAS PLAGIARISME Error! | |
| | Bookmark not defined.i | |
| ABSTRAK | | E |
| | rror! Bookmark not defined.ii | |
| KATA PENGANTAR..... | Error! Bookmark not defined.iii | |
| DAFTAR ISI | iv | |
| DAFTAR TABEL | vi | |
| DAFTAR GAMBAR..... | vii | |
| DAFTAR LAMPIRAN | viii | |
| BAB I PENDAHULUAN | Error! Bookmark not defined.1 | |
| A. Latar Belakang Penelitian | Error! Bookmark not defined.2 | |
| B. Identifikasi Masalah Penelitian..... | Error! Bookmark not defined.3 | |
| C. Pembatasan Masalah Penelitian | Error! Bookmark not defined.3 | |
| D. Rumusan Masalah Penelitian .. | Error! Bookmark not defined.3 | |
| E. Tujuan Penelitian | Error! Bookmark not defined.3 | |
| F. Manfaat Penelitian | Error! Bookmark not defined.4 | |
| BAB II <i>REVERSAL WIND</i> DALAM MENENTUKAN PERILAKU CURAH HUJAN | 5 | |
| A. Sirkulasi Umum Atmosfer | Error! Bookmark not defined.5 | |
| B. Sirkulasi Atmosfer Meridional, Zonal dan Lokal..... | Error! Bookmark not defined.6 | |
| C. <i>Reversal Wind</i> pada Angin Monsun | Error! Bookmark not defined.7 | |
| D. Peran <i>Reversal Wind</i> pada Angin Monsun di Kawasan Barat Indonesia..... | Error! Bookmark not defined.10 | |
| E. Pola Curah Hujan di Indonesia | Error! Bookmark not defined.12 | |
| F. <i>Equatorial Atmosphere Radar</i> (EAR) | Error! Bookmark not defined.15 | |
| G. Analisis Spektral | Error! Bookmark not defined.20 | |

| | | | |
|---------|---|-------------------------------------|------|
| | 1. Fast Fourier Transform (FFT) | Error! Bookmark not defined. | 21 |
| | 2. Transformasi Wavelet..... | Error! Bookmark not defined. | 25 |
| | H. Annual Oscillation (AO) dan Semi Annual Oscillation (SAO) | Error! Bookmark not defined. | 27 |
| | I. Korelasi Silang | Error! Bookmark not defined. | 27 |
| | J. Regresi Linier Sederhana..... | Error! Bookmark not defined. | 28 |
| BAB III | METODE PENELITIAN | Error! Bookmark not defined. | 29 |
| | A. Tempat dan Waktu Penelitian | Error! Bookmark not defined. | 29 |
| | B. Data..... | Error! Bookmark not defined. | 30 |
| | 1. Data Angin..... | Error! Bookmark not defined. | 30 |
| | 2. Data Curah Hujan | Error! Bookmark not defined. | 30 |
| | C. Instrument Penelitian | Error! Bookmark not defined. | 30 |
| | D. Alur Penelitian..... | Error! Bookmark not defined. | 31 |
| | E. Metode Penelitian | Error! Bookmark not defined. | 32 |
| | 1. Analisis Keberadaan <i>Reversal Wind</i> | Error! Bookmark not defined. | 33 |
| | 2. Analisis Spektral..... | Error! Bookmark not defined. | 33 |
| | 3. Analisis Rataan Varians.... | Error! Bookmark not defined. | 33 |
| | 4. Analisis Statistik | Error! Bookmark not defined. | 33 |
| | 5. Analisis Spasial..... | Error! Bookmark not defined. | 34 |
| BAB IV | HASIL DAN PEMBAHASAN ... | Error! Bookmark not defined. | 35 |
| | A. Analisis Keberadaan <i>Reversal Wind</i> | Error! Bookmark not defined. | 35 |
| | B. Analisis Spektral..... | Error! Bookmark not defined. | 38 |
| | C. Analisis Rataan Varians..... | Error! Bookmark not defined. | 42 |
| | D. Analisis Statistika | Error! Bookmark not defined. | 43 |
| | E. Analisis Spasial..... | Error! Bookmark not defined. | 48 |
| BAB V | SIMPULAN DAN SARAN | Error! Bookmark not defined. | 51 |
| | A. Simpulan..... | Error! Bookmark not defined. | 51 |
| | B. Saran | Error! Bookmark not defined. | 51 |
| | DAFTAR PUSTAKA..... | Error! Bookmark not defined. | viii |
| | LAMPIRAN... .. | Error! Bookmark not defined. | xii |

DAFTAR TABEL

| | |
|---|----|
| Tabel 2.1 <i>Spesifikasi Equatorial Atmosphere Radar (EAR)</i> | 19 |
| Tabel 4.1 Nilai korelasi silang antara reversal wind dengan anomali curah hujan Sicincin, Teluk Bayur dan Tabing | 44 |
| Tabel 4.2 Persamaan regresi linier seuntuk ketiga obyek wilayah kajian | 46 |

DAFTAR GAMBAR

| | |
|--|-------|
| Gambar 2.1 Gerak semu tahunan Matahari terhadap Bumi..... | 5 |
| Gambar 2.2 Sirkulasi atmosfer meridional (sirkulasi Hadley) dan sirkulasi atmosfer zonal (sirkulasi Walker)..... | 7 |
| Gambar 2.3 Pola angin Monsun pada saat musim dingin (winter)..... | 9 |
| Gambar 2.4 Pola angin Monsun pada saat musim panas (summer) | 10 |
| Gambar 2.5 (a) Monsun Asia dan (b) Monsun Australia yang terjadi di kawasan Indonesia..... | 11 |
| Gambar 2.6 Pola Curah Hujan di Indonesia | 15 |
| Gambar 2.7 Antena EAR | 16 |
| Gambar 2.8 Berbagai instrumen di situs EAR..... | 16 |
| Gambar 3.1 Peta wilayah obyek kajian..... | 29 |
| Gambar 3.2 Diagram Alur Penelitian 31 | 32 |
| Gambar 4.1 Time Height Section kontur plot kecepatan (a) angin zonal dan (b) angin meridional fungsi ketinggian data EAR di Kototabang .. | 35 |
| Gambar 4.2 Profil vertikal plot kecepatan (a) angin zonal dan (b) angin meridional fungsi ketinggian dari data EAR di Kototabang7 | 37 |
| Gambar 4.3 Power Spectral Density (PSD) Reversal Wind Zonal dan Meridional Equatorial Atmosphere Radar (EAR) di Kototabang Sumatera Barat dan Anomali Curah Hujan di Tiga Stasiun Kajian Sumatera Barat | 39 |
| Gambar 4.4 Wavelet (a) reversal wind meridional 9,581 km dpl dan anomali curah hujan di tiga stasiun wilayah kajian (b) Sicincin (c) Teluk Bayur (d) Tabing | 40-41 |
| Gambar 4.5 Rataan varians dari curah hujan Sicincin, Teluk Bayur dan Tabing serta reversal wind meridional di 9,581 km dpl | 43 |
| Gambar 4.6 Korelasi Silang antara reversal wind dengan anomali curah hujan di tiga stasiun wilayah kajian (a) Sicincin (b) Teluk Bayur (c) Tabing | 44 |
| Gambar 4.7 Time series reversal wind meridional di 9,581 km dpl dengan anomali curah hujan (a) Sicincin, (b) Teluk Bayur, (c) Tabing | 46 |
| Gambar 4.8 Scatterplot reversal wind meridional di 9,581 km dpl dengan anomali curah hujan (a) Sicincin, (b) Teluk Bayur, (c) Tabing | 46 |
| Gambar 4.9 Distribusi curah hujan CRU Sumatera Barat musim (a) DJA, (b) MAM, (c) JJA dan (d) SON tahun 2002-2007 | 48 |

DAFTAR LAMPIRAN

- Lampiran 1.** Data Angin Reversal Wind Meridional 9,581 km dpl, Angin Zonal 4.853 km dpl, Anomali CH Sicincin, Teluk Bayur dan Tabing Periode 2002-2007.....xi
- Lampiran 2.** Coding Matlab untuk Merata-ratakan Data Angin 10 menitan ke Bulananxiii
- Lampiran 3.** Coding Matlab untuk Plot Profil Vertikal Angin Tiap Bulan.....xiv
- Lampiran 4.** Coding Matlab untuk Mengoperasikikan Program Time Height Section.....xv
- Lampiran 5.** Coding Matlab untuk Mengoperasikikan Program Power Spectral Density (PSD)xvii
- Lampiran 6.** Coding Matlab untuk Mengoperasikikan Program Wavelet Transformation.....xviii
- Lampiran 7.** Coding GrADS untuk Menampilkan Curah Hujan Spasial.....xxiii
- Lampiran 8.** Pengolahan Data pada Angin Zonalxxx

