

Dr. Kerstin Weis

List of Publications

as of May 3, 2012

PUBLICATIONS IN REFEREED JOURNALS

1. *Self-Propagating Star Formation in the Supergiant Shell LMC 2*
Dominik J. Bomans, Sean Points, Kerstin Weis, You-Hua Chu
1995, RevMexAA (Serie de Conferencias), 3, 77
2. *Two Small Bubbles around LMC Blue Supergiants*
Kerstin Weis, Dominik J. Bomans, You-Hua Chu
1995, RevMexAA (Serie de Conferencias), 3, 237
3. *Ring Nebula and Bipolar Outflows Associated with the B1.5 Supergiant Sher 25 in NGC 3603*
Wolfgang Brandner, Eva K. Grebel, You-Hua Chu, Kerstin Weis
1997, ApJ, 475, L45
4. *The Bipolar Structure of the LBV Nebula around HR Car*
Kerstin Weis, Wolfgang J. Duschl, Dominik J. Bomans, You-Hua Chu, Mike D. Joneer
1997, A&A, 320, 568
5. *Two Ring Neblulae around Blue Supergiants in the Large Magellanic Cloud*
Kerstin Weis, You-Hua Chu, Wolfgang J. Duschl, Dominik J. Bomans
1997, A&A, 325, 1157
6. *Physical Structure of Small Wolf-Rayet Ring Nebulae*
You-Hua Chu, Kerstin Weis, Don R. Garnett
1999, AJ, 117, 1433
7. *The nature of strings in the nebula around η Carinae*
Kerstin Weis, Wolfgang J. Duschl, You-Hua Chu
1999, A&A, 349, 467
8. *A kinematic and morphological investigation of the asymmetric nebula around the LBV candidate WRA 751*
Kerstin Weis
2000, A&A, 357, 938
9. *High velocity structures in and the X-ray emission from the LBV nebula around η Carinae*
Kerstin Weis, Wolfgang J. Duschl, Dominik J. Bomans
2001, A&A, 367, 566
10. *Outflow from and asymmetries in the nebula around the LBV candidate Sk-69° 279*
Kerstin Weis, Wolfgang J. Duschl
2002, A&A, 393, 503
11. *An outflow from the nebula around the LBV candidate S 119*
Kerstin Weis, Wolfgang J. Duschl, Dominik J. Bomans
2003, A&A, 398, 1041

12. *On the Structure and Kinematics of Nebulae around LBVs and LBV candidates in the LMC*
Kerstin Weis
 2003, A&A, 408, 205
13. *A spectral and spatial analysis of η Carinae's diffuse X-ray emission using CHANDRA*
Kerstin Weis, Michael F. Corcoran, Dominik J. Bomans, Kris Davidson
 2004, A&A, 415, 595
14. *Kinematics and Ultraviolet-to-Infrared Morphology of the Inner Homunculus of η Carinae*
 Nathan Smith, Jon A. Morse, Theodore R. Gull, D. John Hillier, Robert D. Gehrz, Nolan R. Walborn,
 Manuel Bautista, Nicolas R. Collins, Michael F. Corcoran, Augusto Damineli, Fred Hamann, Henrik Hart-
 man, Sveneric Johansson, Otmar Stahl, Kerstin Weis
 2004, ApJ, 605, 405
15. *η Carinae's Brightness Variations Since 1998: HST Observations of the Central Star*
 John C. Martin, Michael D. Koppelman, HST Eta Carinae Treasury Project Team
 2004, AJ, 127, 2352
16. *Identification of Emission Lines in the Low-Ionization Strontium Filament Near η Carinae*
 Henrick Hartman, Theodore R. Gull, Sveneric Johansson, Nathan Smith, HST Eta Carinae Treasury Project Team
 2004, A&A, 419, 215
17. *Waiting in the Wings: Discovery of X-ray Reflection from the Homunculus Nebula around η Carinae*
 Michael F. Corcoran, Kenji Hamaguchi, Theodore R. Gull, Kris Davidson, Robert Petre, D. John Hillier,
 Nathan Smith, Augusto Damineli, Jon A. Morse, Nolan R. Walborn, Ekaterina Verner, Nicholas Collins,
 Steven White, Julian M. Pittard, Kerstin Weis, Dominik J. Bomans, Yousaf M. Butt
 2004, ApJ, 613, 381
18. *SN2002kg - the brightening of LBV V37 in NGC 2403*
Kerstin Weis, Dominik J. Bomans
 2005, A&A, 429, L13
19. *A Change in the physical state of η Carinae?*
 Kris Davidson, John C. Martin, Roberta M. Humphreys, Kazunori Ishibashi, Theodore R. Gull, Otmar Stahl,
Kerstin Weis, D. John Hillier, Augusto Damineli, Michael F. Corcoran, Fred Hamann
 2005, AJ, 129, 900
20. *VLT-UVES observations of the Balmer line variations of η Carinae during the 2003 spectroscopic event*
Kerstin Weis, Otmar Stahl, Dominik J. Bomans, Kris Davidson, Theodore R. Gull, Roberta M. Humphreys
 2005, ApJ, 129, 1694
21. *A spectroscopic event of η Car viewed from different directions: The data and first results*
 Otmar Stahl, Kerstin Weis, Dominik J. Bomans, Kris Davidson, Theodore R. Gull, Roberta M. Humphreys
 2005, A&A, 435, 303
22. *Variable Unidentified Emission Near 6307 Å in η Carinae*
 John C. Martin, Kris Davidson, Fred Hamann, Otmar Stahl, Kerstin Weis
 2006, PASP, 118, 697

23. *The UV Scattering Halo of the Central Source Associated with η Carinae*
D. John Hillier, Theodore R. Gull, Krister Nielsen, George Sonneborn, Rosina Iping, Nathan Smith, Michael F. Corcoran, Augusto Damineli, Fred W. Hamann, John C. Martin, Kerstin Weis
2006, ApJ, 642, 1098
24. *Near-infrared interferometry of η Carinae with spectral resolutions of 1500 and 12000 using AMBER/VLTI*
Gerd Weigelt, ..., Kerstin Weis, et 101 alii
2007, A&A, 464, 87
25. *Outflow or galactic wind: the fate of ionized gas in the halos of dwarf galaxies*
Janine van Eymeren, Dominik J. Bomans, Kerstin Weis, Ralf-Jürgen Dettmar
2007, A&A, 474, 67
26. *Eta Carinae Across the 2003.5 Minimum: Analysis in the Visible and Near-Infrared Spectral Region*
Krister E. Nielsen, Gladys V. Kober, Kerstin Weis, Theodore R. Gull, Otmar Stahl, Dominik J. Bomans
2008, ApJ, 181, 473
27. *η Carinae – The outer ejecta*
Kerstin Weis
2009, CoAst, 159, 121
28. *The extended interacting wind structure of Eta Carinae*
Theodore R. Gull, Krister E. Nielsen, Michael F. Corcoran, Thomas I. Madura, Stanley P. Owocki, Christopher M. P. Russell, D. John Hillier, Koichi Hamaguchi, Gladys V. Kober, Kerstin Weis, Otmar Stahl, Atsuo T. Okazaki
2009, MNRAS, 396, 1308
- INVITED PAPERS
29. *The outer ejecta of η Carinae*
Kerstin Weis
2001, in ‘ η Carinae and other mysterious stars’, (Eds.: Gull T., Johansson S., Davidson K.), ASP Conf. Series, 242, 129
30. *LBV Nebulae: The Mass Lost from the Most Massive Stars*
Kerstin Weis
2001, in ‘Reviews in Modern Astronomy 14’, (Ed.: Schielicke R.E., Springer-Verl., ISBN 3-9805176-4-0), 261
31. *η Carinae: The physical structure of the outer ejecta and the strings*
Kerstin Weis
2002, in Eta Carinae: Reading the Legend, a workshop held at Mt Rainier WA, USA, 11-13 July 2002 (B. Balick, ed.). Published online at: <http://www.astro.washington.edu/users/balick/eta.conf>, article #P13
32. *The outer ejecta of η Carinae*
Kerstin Weis
2005, in ‘The Fate of the Most Massive Stars’, (Eds.: Humphreys R.M., Stanek K.), ASP Conf. Series, 332, 271

33. *LBVs - missing in starbursts ?*
Kerstin Weis
2005, in 'The evolution of starbursts', (Eds.: Hüttmeister S., Manthey E., Bomans D.J., Weis K.), AIP Conf. Series, 783, 26
34. *The Luminous Blue Variable phase—do low metallicity stars go through it?*
Kerstin Weis
2006, in 'Stellar Evolution at Low Metallicity: Mass Loss, Explosions, Cosmology', ASP Conf. Series, 353, 71

TECHNICAL REPORTS

35. *Optimization of the thrust direction during a powered gravity assist*
Kerstin Weis
1993, European Space Agency, workingpaper

THESES

36. Diploma Thesis:
Die Dynamik Zirkumstellarer Hüllen: η Carinae, HR Carinae, Sk-69 279 und Sk-69 271
(The dynamics of circumstellar bubbles: η Carinae, HR Carinae, Sk-69 279 and Sk-69 271),
Kerstin Weis, in German, 1996, University of Heidelberg
37. Ph.D. Thesis:
Die Morphologie und Kinematik von Nebeln um Leuchtkräftige Blaue Veränderliche
(The Morphology and Kinematics of Nebulae around Luminous Blue Variables),
Kerstin Weis, in German, 1999, University of Heidelberg

IAU CIRCULAR

38. *Supernova 2004dj in NGC 2403*
Kerstin Weis, Dominik J. Bomans, Silvio Klose, Frank Spiller
2004, IAUC 8384, 4

BOOKS

39. *The Evolution of Starbursts: The 331st Wilhelm and Else Heraeus Seminar*
Susanne Hüttmeister, Eva Manthey, Dominik J. Bomans, Kerstin Weis
2005, AIP Conf. Series, 783

IN BOOKS

40. *The Outer Ejecta*
Kerstin Weis
in *Eta Carinae and the Supernovae Imposters*
(Eds.: Davidson K. and Humphreys R.M.), Springer-Verlag, 2012,
Astrophysics and Space Sciences Library 384, 771

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41. *Two Circumstellar Bubbles around Blue Supergiants in the LMC*
Kerstin Weis, You-Hua Chu, Dominik J. Bomans
1996, BAAS 28, 61.09
42. *The Bipolar Structure of the LBV Nebula around HR Car*
Kerstin Weis, Wolfgang J. Duschl, Dominik J. Bomans, You-Hua Chu
1996, AG Abstract Series, 12, 178
43. *A Kinematical Study of Features in the LBV Nebula around η Carinae*
Kerstin Weis, Wolfgang J. Duschl, You-Hua Chu
1997, AG Abstract Series, 13, 37
44. *A Kinematic Study of the LBV Nebula around η Carinae*
Kerstin Weis, Wolfgang J. Duschl, You-Hua Chu
1998, in 'Cyclical Variability in Stellar Winds' (Eds.: Kaper L. and Fullerton A.), Lecture Notes in Physics,
Springer Verlag, 113
45. *A Detailed Kinematic Analysis of the Nebula around the LBV WRA 751*
Kerstin Weis, Wolfgang J. Duschl
1998, AG Abstract Series, 14, 95
46. *The LBV nebula around η Carinae and its mysterious features*
Kerstin Weis, Wolfgang J. Duschl, You-Hua Chu
1998, in IAU Coll. 169 (IAU Coll. 169, Eds.: Wolf, B., Stahl O., Fullerton A.W.), Poster Abstract
47. *Shaping the ISM: Massive Stars in LMC Superbubbles*
Dominik J. Bomans, Kerstin Weis
1998, in 'Variable and Non-spherical Stellar Winds in Luminous Hot Stars' (IAU Coll. 169, Eds.: Wolf, B.,
Stahl O., Fullerton A.W.), Poster Abstract
48. *Bubbles around Massive Stars in LMC HII Regions*
Kerstin Weis, Wolfgang J. Duschl
1999, in 'The Magellanic Clouds and Other Dwarf Galaxies' (Proceedings of the Bonn/Bochum-Graduiertenkolleg
Workshop, Eds.: Richtler T. and Braun J.M.), Shaker Verlag, 303
49. *The LBV Nebula around η Carinae and its Remarkable Features*
Kerstin Weis, Wolfgang J. Duschl
1999, in 'Eta Car at the Millennium' (Eds.: Morse J., Humphreys R., Damiani A.), ASP Conf. Series, 179,
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50. *High velocity gas and the X-ray emission of the nebula around η Carinae*
Kerstin Weis, Wolfgang J. Duschl, Dominik J. Bomans
 1999, AG Abstract Series, 15, 103W
51. *Dust Condensation in η Carinae*
 Hans-Peter Gail, Wolfgang J. Duschl, Kerstin Weis
 1999, AG Abstract Series, 15, 103G
52. *Formation of Ring Nebulae around Massive Stars in LMC HII regions*
Kerstin Weis, Wolfgang J. Duschl
 1999, in 'New Views of the Magellanic Clouds' (Eds.: Chu Y.-H., Suntzeff N.B., Hesser J., Bohlender D.),
 Proc. IAU Symp. No. 190 (San Francisco: ASP), 134
53. *High velocity structures in and the X-ray emission from the LBV nebula around η Carinae*
Kerstin Weis, Wolfgang J. Duschl, Dominik J. Bomans
 2000, HEAD, 32, 4215
54. *The remarkable outer ejecta of η Carinae*
Kerstin Weis
 2001, BAAS, 198, 14.08
55. *Analysis of η Carinae's outer Ejecta using CHANDRA and HST/STIS Data*
Kerstin Weis, Michael F. Corcoran, Kris Davidson
 2001, AG Abstract Series, 18, 211
56. *Warm and Hot Gaseous Outflows in Dwarf Galaxies*
 Dominik J. Bomans, Kerstin Weis, Ralf Tüllmann, Ralf-Jürgen Dettmar
 2001, ApSSS, 277, 51
57. *The XMM-NEWTON View of the LMC Superbubble N51D*
 Dominik J. Bomans, Jörn Rossa, Kerstin Weis, Konrad Dennerl
 2002, AG Abstract Series 19, 44
58. *Strings, Jets and Shocks in η Carinae's Ejecta*
Kerstin Weis
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59. *A High-Resolution Study of Eta Carinae's Outer Ejecta*
Kerstin Weis
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60. *The physical structure of the outer ejecta and the strings*
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61. *On the X-ray emission of η Carinae's outer ejecta*
Kerstin Weis, Michael F. Corcoran, Kris Davidson
 2002, in 'High Energy Universe at Sharp Focus: Chandra Science, (Eds.: Schlegel E.S, Vrtilik S.), ASP Conf. Series, 262, 275

62. *X-ray emission of Dwarf Galaxies: I Zw18*
Dominik J. Bomans, Kerstin Weis
2002, in 'High Energy Universe at Sharp Focus: Chandra Science, (Eds.: Schlegel E.S, Vrtilik S.), ASP Conf. Series, 262, 141
63. *Strings, Jets and Shocks in η Carinae's Ejecta*
Kerstin Weis
2003, AN Supplementary Issue, 2, 324, 69
64. *The XMM-NEWTON View of the LMC Superbubble N51D*
Dominik J. Bomans, Jörn Rossa, Kerstin Weis, Konrad Dennerl
2003, AN Supplementary Issue, 2, 324, 31
65. *LBV (Candidate) Nebulae: Bipolarity and Outflows*
Kerstin Weis
2003, in: A Massive Star Odyssey, from Main Sequence to Supernova, (Eds.: van der Hucht K.A., Herrero A., Esteban C.), Proc. IAU Symp. No. 212 (San Francisco: ASP), 757
66. *A High-Resolution Study of η Carinae's Outer Ejecta*
Kerstin Weis, Michael F. Corcoran, Kris Davidson, Roberta M. Humphreys
2003, in: A Massive Star Odyssey, from Main Sequence to Supernova, (Eds.: van der Hucht K.A., Herrero A., Esteban C.), Proc. IAU Symp. No. 212 (San Francisco: ASP), 759
67. *The feedback of massive stars on the ISM: XMM-Newton view of the LMC superbubble N51D*
Dominik J. Bomans, Jörn Rossa, Kerstin Weis, Konrad Dennerl
2003, in: A Massive Star Odyssey, from Main Sequence to Supernova, (Eds.: van der Hucht K.A., Herrero A., Esteban C.), Proc. IAU Symp. No. 212 (San Francisco: ASP), 637
68. *The HST Treasury Project on η Carinae*
Kris Davidson, Kazunori Ishibashi, Theodore R. Gull, John C. Martin, Roberta M. Humphreys, Augusto Damineli, Kerstin Weis, Otmar Stahl, D. John Hillier, Michael F. Corcoran, Fred Hamann, Nolan R. Walborn, Sveneric Johansson, Henrik Hartman, Manuel Bautista
2003, BAAS, 203, 58.05
69. *Mass Lost from the Most Massive Stars*
Kerstin Weis
2004, in 'Studies of Galaxies in the Young Universe with New Generation Telescopes', (Proceedings of Japan-German Seminar, Sendai, Japan, July 24-28, 2001, Eds.: Arimoto N., Duschl W.J.), 113-116
70. *The Homunculus Ejecta: A Comparison between HST/STIS and VLT/UVES Observation*
Theodore R. Gull, Henrik Hartman, Krister Nielsen, Gladys Vieira, Otmar Stahl, Kerstin Weis, Dominik J. Bomans, VLT UVES Eta Carinae, HST STIS Eta Carinae Treasury
2004, BAAS, 205, 20.01
71. *The η Campaign with UVES at the ESO VLT*
I. The dataset and a first look
Kerstin Weis, Dominik J. Bomans, Otmar Stahl, Kris Davidson, Roberta M. Humphreys, Theodore R. Gull
2005, in 'The Fate of the Most Massive Stars', (Eds.: Humphreys R.M., Stanek K.), ASP Conf. Series, 332, 160

72. *The η Car Campaign with UVES at the ESO VLT*
II. Interstellar and circumstellar absorption lines
 Dominik J. Bomans, Kerstin Weis,
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73. *A spectroscopic event of η Car viewed from different directions*
 Otmar Stahl, Kerstin Weis, Dominik J. Bomans, Kris Davidson, Roberta M. Humphreys, Theodore R. Gull
 2005, in ‘The Fate of the Most Massive Stars’, (Eds.: Humphreys R.M., Stanek. K.), ASP Conf. Series, 332, 137
74. *Dust formation in LBV envelopes*
 Hans-Peter Gail, Wolfgang J. Duschl, Andrea S. Ferrarotti, Kerstin Weis
 2005, in ‘The Fate of the Most Massive Stars’, (Eds.: Humphreys R.M., Stanek. K.), ASP Conf. Series, 332, 317
75. *The environment of LBVs in M33*
 Birgitta Burggraf, Kerstin Weis, Dominik J. Bomans
 2005, in ‘The evolution of starbursts’, (Eds.: Hüttmeister S., Manthey E., Bomans D.J. Weis K.), AIP Conf. Series, 783, 33
76. *Giant Outflows from Irregular Dwarf Galaxies*
 Janin von Eymeren, Dominik J. Bomans, Kerstin Weis
 2005, in ‘The evolution of starbursts’, (Eds.: Hüttmeister S., Manthey E., Bomans D.J., Weis K.), AIP Conf. Series, 783, 116
77. *Elemental and Molecular Relative Abundances in the Ejecta of η Carinae*
 Gladys V. Kober, Theodore R. Gull, Krister E. Nielsen, Fred Bruhweiler, Ekaterina Verner, Otmar Stahl, Kerstin Weis, D.J. Bomans
 2005, BAAS, 207, 114.09
78. *LBVs in M33: Their Environments and Ages*
 Birgitta Burggraf, Kerstin Weis, Dominik J. Bomans
 2006, in ‘Stellar Evolution at Low Metallicity: Mass Loss, Explosions, Cosmology’, ASP Conf. Series, 353, 245
79. *Galactic winds in dwarf galaxies*
 Dominik J. Bomans, Janine van Eymeren, Ralf-Jürgen Dettmar, Kerstin Weis, Ulrich Hopp
 2007, NewAR, 51, 141
80. *LBV nebulae: tracers of stars close to instability*
Kerstin Weis
 2007, AN 328, 716W
81. *LBVs in Local Group Galaxies*
 Burggraf Birgitta., Kerstin Weis, Dominik J. Bomans
 2007, AN 328, 716B
82. *Eta Carinae: Preparing for the Next Spectroscopic Event and What We May Learn*
 Theodore R. Gull, Michael F. Corcoran, Augusto Damineli, D. John Hillier, Stan Owocki, T. Madura, Gerd Weigelt, J. Groh, Krister Nielsen, Gladys Vieira Kober, Kerstin Weis, Henrick Hartman, Nathan Smith,

- Koichi Hamaguchi, Manuel Bautista
2007, BAAS, 211, 51.03
83. *Further Investigation Of The Winds Of Eta Car A And B*
Kristen E. Nielsen, Michael F. Corcoran, Theodore R. Gull, Kenji Hamaguchi, D. John Hillier, Kerstin Weis
2007, BAAS, 211, 51.21
84. *Wind relics: clumps, inhomogeneities and outflows in LBV nebulae*
Kerstin Weis
2008, in 'Clumping in Hot Star Winds', (Potsdam: Uni.-Verl., Eds.: W.-R. Hamann, A. Feldmeier, L. Oskinova), 183
85. *New LBV Candidate in M33*
Birgitta Burggraf, Kerstin Weis, Dominik J. Bomans
2008, ASP Conf. Series 388, 149
86. *The AG Carinae nebula – bigger than ever?*
Kerstin Weis
2008, ASP Conf. Series 388, 231
87. *Feedback and Clusters in the Sdm Galaxy UGC 1281*
Dominik J. Bomans, Kerstin Weis
2008, ASP Conf. Series 388, 395
88. *Resolving the Massive Binary Wind Interaction Of Eta Carinae with HST/STIS*
Theodore R. Gull, Kristen E. Nielsen, Michael F. Corcoran, D. John Hillier, Thomas I. Madura, Koichi Hamaguchi, Gladys V. Kober, Stanley P. Owocki, Christopher M. P. Russell, Atsuo T. Okazaki, Kerstin Weis, Otmar Stahl
2009, BAAS, 213, 408.03
89. *Correlation between the Convexity of the Disk Radial Profile and the Hubble Type of the Galaxy*
O.I. Stanchev, Ts.B. Georgiev, Kerstin Weis, Dominik J. Bomans, Ralf-Jürgen Dettmar
2009, AIP Conf. Series 1121, 61
90. *Massive variable stars at very low metallicity?* Dominik J. Bomans, Kerstin Weis
2011, IAU Symposium 272, 265
91. *Nebulae around Luminous Blue Variables - large bipolar variety*
Kerstin Weis
2011, IAU Symposium 272, 372
92. *The nature of the massive stellar transient in DDO 68*
Dominik J. Bomans, Kerstin Weis
2011, BSRSL 80, 341
93. *Var C: (Semi-)Periodic Long-Term Variability*
Birgitta Burggraf, Kerstin Weis, Dominik J. Bomans, Martin Henze
2011, BSRSL 80, 356
94. *Weis, K.: Gone with the wind: Nebulae around LBVs*
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PROCEEDINGS, SUBMITTED

95. *LBV nebulae as tracers of stellar instabilities*

Kerstin Weis

201*, ASP Conf. Series

96. *28 years of Luminous Blue Variables*

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97. *Der schnelle Wind von η Carinae*

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98. *η Carinae und der Homunkulus*

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99. *Vom Winde verweht – massereiche Sterne*

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100. *Vom Winde verweht: LBV Sterne und ihre Nebel*

Kerstin Weis

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