

**Box List:** Icko Iben, Jr. Papers, 1950-2006  
**Astronomy Department, UIUC**  
**ID:** 15/3/27

**Arrangement:**

- Series 1: Personal and Administrative, 1950-1999
- Series 2: Correspondence, 1950-2010
- Series 3: Teaching Materials, 1958-1998
- Series 4: Research and Professional Engagement, 1958-2006
- Series 5: Talks, Lectures, and Conferences, 1960-2003
- Series 6: Publications, 1958-2004

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**Series 1: Personal and Administrative, 1950-1999**

This series contains Iben's thesis and related research; CVs and activity reports; a photograph of Iben; personal writings; meeting with Dean Humphreys and faculty meeting on Prairie Observatory; salary correspondence and budgets; and grant proposals, correspondence, and reports. This series is arranged chronologically.

**Box 1**

1. Iben thesis and research (1 of 6), c. 1950s
2. Iben thesis and research (2 of 6), c. 1950s
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1. Iben thesis and research (5 of 6), c. 1950s
2. Iben thesis and research (6 of 6), c. 1950s
3. Iben's Ph.D. Thesis: "Part 1. Higher Order Effects in Beta Decay. Part 2. The Beta-Gamma Correlation and Time Reversal Invariance," 1958
4. Iben photograph, c. 1960s
5. Employment, 1960
6. NSF Fellowship preliminaries, 1960
7. Williams College ionization calculations, request for NSF funds, 1960
8. MIT Proposal, 1964
9. Diary – Begun 6/2/66
10. 1967-68 NSF proposal
11. NSF proposal, 1967-8
12. Request for Sloan Foundation funds, 1968
13. Sloan Foundation Grant, 1968

**Box 3**

1. 1968-70 NSF proposal
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3. Iben publications and talks list, 1969
4. Nonsense for committees, 1969

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5. NSF grant April 1969 ->
6. NASA grant reports, 1969-1970
7. Chicago, 1969-1970
8. NSF 1969-71 proposal
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10. NSF Grant GP-6387 (Final Report), GP-8060 (Progress Report), 1970
11. Stonybrook, 1970
12. National Science Foundation grant proposal and reports, 1970-1971
13. 1971 NSF proposal correspondence with Fleischer
14. Dean Humphreys meeting, 2/17/80
15. Faculty meeting re Prairie and URO, March 1980
16. Iben NSF reviews & reply, 1981
17. NSF, 81-84
18. Negatives from administration, 1982
19. Salary concerns, 1982
20. NSF Grant 84-13371, 1984-1989

**Box 4**

1. Vita, etc. 1985
2. Report on 85/86 sabbatical
3. Salary performance, 85-86, 86-87
4. Salaries, 1986-1987
5. Yearly activity report, 86, 87, 88
6. NSF 87-89
7. NCSA proposal, 1988-1991
8. NSF, 88-91 proposal
9. NCSA ~ 1998-1994
10. Grants, reports, letter to Dean Bright, 1989
11. "Graduate Studies in Astronomy and Astrophysics: Department of Astronomy – University of Illinois," c. 1990s
12. NSF 1990 renewal
13. NSF 1991-94 proposal
14. NSF preparation for grant, 91->94
15. NSF 1991-95 final report
16. AST91 revised budget, 1994
17. NSF renewal, 1994
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1. Distinguished Lecture, 1991-2010
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**Box 5**

3. 1993 salary arguments
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5. Australia – Balzan Prize, '94
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8. Salary, 1996
9. Salary, 1997
10. Salary, 1998, 1999
11. Sabbatical, 1998-99
12. Swan Song – outline: Icko Iben, Jr. A Personal History in Astronomy, 1999

**Series 2: Correspondence, 1950-2010**

This series is arranged chronologically and alphabetically within the year.

**Box 5**

13. Contacts & addresses, c. 1960s
14. Iben-Ehrman correspondence, 1960
15. Misc. correspondence, 1961-1964
16. 1962-1964 correspondence (1 of 2)
17. 1962-1964 correspondence (2 of 2)

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1. 1964 correspondence and notes
2. Correspondence on “Thermal Pulses...Connective Mixing in a Star of Intermediate Mass,” 1964
3. Editor of Nature – re Bondi, 1964
4. Kellogg Radiation Laboratory mixture results, 1964
5. Munich, etc. correspondence, 1964
6. Committee on International Exchange of Persons correspondence, April 1964
7. Correspondence, 1964-1965
8. 1965 correspondence
9. Kraft’s cepheid paper referee, 1965
10. Young Clusters – I<sup>2</sup> & talks, 1965
11. Correspondence, 1965-1966

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- 1 Correspondence, 1965-1966
- 2 Iben – letters, 1966
- 3 Ref’s report on Demarque, 1966
- 4 Correspondence – I. Iben, Jr. 1966-1969
- 5 MIT correspondence, 1966-1971
- 6 Be<sup>7</sup> K capture paper referee reports, 1967
- 7 One-way correspondence with Faulkner, 1967
- 8 1967-1969 correspondence
- 9 1968 correspondence
- 10 C1<sup>37</sup> solar neutrino experiment and the solar helium abundance referee, 1968

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1. Correspondence 1968 "immediate attention"
2. Memo to A. Hill, winter 1968
3. Referee paper request, 1968
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7. Correspondence on grants, 1968-1970
8. Recommend and ref. rep. etc. '68-'70
9. Correspondence, 1969
10. Correspondence, fall 1969

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1. Massevich, 1969
2. Mean letter to Willy, 1969
3. Nasty notes for Nature, 1969
4. NSF correspondence, December 1969
5. Letters, 9/69 -> 12/70
6. Letter to Daddario, 1969-1970
7. 1970 late correspondence
8. California trip, May 1970
9. Correspondence, 1970
10. Proposal ref reports, 1970
11. Scientific American correspondence, 1970
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13. Correspondence, 1971
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1. Recommendations, 1971
2. Ref's report on pulsation paper, 1971
3. Correspondence, 1971-1972
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5. Conferences, 1972
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7. Correspondence, 3/72 ->
8. Ast Dept 1980 correspondence
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1. Renzini correspondence and draft, 1981 OVERSIZE
2. Correspondence, 1981-1990
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6. Correspondence 1985 He flashes - .378 originals
7. Correspondence 1985 Nomoto & Iben – everything

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- 8. Dwarf supernova Al Cameron, 1985
- 9. 1985-1986 correspondence
- 10. Correspondence odds & ends, 1985,87

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- 1. 1986 correspondence (1 of 2)
- 2. 1986 correspondence (2 of 2)
- 3. Contents of boxes shipped to Moscow, 1986
- 4. Sabbatical Plans – Sussex, 1986
- 5. Evans-Iben-Smarr paper, 1987
- 6. James Graham Sme I, 1987
- 7. Letters, 1987
- 8. Recommendations, 1987
- 9. Reports on progress in physics questionnaire, 1987
- 10. Robinson – close WD's, 1987
- 11. Hollowell – Jobs, 1987-1988

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- 1. 1987-1989 correspondence (1 of 8)
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- 3. 1987-1989 correspondence (3 of 8)
- 4. 1987-1989 correspondence (4 of 8)
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- 1. 1987-1989 correspondence (6 of 8)
- 2. 1987-1989 correspondence (7 of 8)
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- 4. Masayuki Fujimoto recommendation, 1988
- 5. Prof. Iben reference forms for Greg Laughlin, 1988
- 6. E. Garcia-Berro and Mariko Kato, 1989
- 7. Eggen – NAS, 1989
- 8. Feelers, '89
- 9. Merger paper & ref's rept. 1989
- 10. Z=0 paper 1, 1989
- 11. Correspondence Fujimoto & Iben shell He burning, 1989-90
- 12. Mariko Kato, 1989-1990
- 13. Tom W. Day, c. 1990s

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- 1. 1990s correspondence (1 of 6)
- 2. 1990s correspondence (2 of 6)
- 3. 1990s correspondence (3 of 6)
- 4. 1990s correspondence (4 of 6)
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**Box 16**

- 1. 1990s correspondence (6 of 6)
- 2. Helium stars artele correspondence, 1990

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3. Penn State correspondence (1 of 2), 1990
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5. Tutukov, 1990
6. Letters to respond to, 1990-1994
7. 1990s-2000s correspondence (1 of 10)

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1. 1990s-2000s correspondence (7 of 10)
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1. D'Antona-Balzam Prize, '94
2. G-B & J<sup>2</sup> referee, 1994
3. Spanish paper, '94
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5. Gratton Prize, 1994-1995
6. XMBs/refs, 1994-1995
7. Correspondence with Enrique Garcia, 1995
8. Paper II Ritossa, G-B, & I, 1995
9. R CrB, 1995
10. SySs, 1995-1996
11. 1996 recommendations
12. Birthday, 1996
13. Degenerate dwarf stars, 1996
14. Garcia-Berro, Ritossa, Iben – Elba, 1996
15. ITF – LMXBs & ISW correspondence, 1996
16. ISW correspondence & notes, 1996
17. Osagb correspondence, 1996
18. Paper IV Enrique Garcia correspondence, 1996
19. Sasha correspondence, 1996
20. ARJ corres. Kick II – reference stuff, 1996-1997
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1. Sky & telescope, 1996-1997
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4. Kalogera, rec's, 1996-1998

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6. APJ correspondence Kick.II research, 1997
7. Correspondence 1997 born again
8. Correspondence & notes Rumansary paper, '97
9. Elba – thanks, 1997
10. Fujimoto, 1997
11. Garcia Correspondence, 1997
12. Paper IV APJ correspondence, 1997
13. Sasha, 1997
14. Sasha's visit, 1997
15. Prialnik.rec, 1997-1998
16. Recommendations, 1997-1998
17. Rick.vdh, 1997-1998

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1. Sani & Amedeo, 1997-1999
2. Piersanti et al 1998 correspondence
3. Tidal heating of WDs, 1998
4. NAS – current business, 1999
5. Fujimoto, 1999
6. APJ correspondence, 1999
7. Recommendations, '99
8. NAS matters, 2000
9. Program Bignet, 2001-04
10. Correspondence the ck-alpha reaction, 2002
11. Misc. correspondence, 2005-2010

**Series 3: Teaching Materials, 1958-1998**

This series contains class lectures and notes; problems sets; and exams from Cal Tech, MIT, and the University of Illinois. This series is arranged chronologically.

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13. Physics 8, 7, 5-6, 1958-1959

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1. Physics class notes, 1958-1961
2. Physics – Williams College, 1958-1961
3. Physics S-6 final exam, 1959
4. Physics S-6 notes, 1959
5. MIT physics exams, 1959-1966
6. II Atomic, c. 1960s
7. III Nuclear, c. 1960s
8. IV Stellar physics, c. 1960s
9. 404 problem solns. c. 1960s
10. 8:08 problem sets, c. 1960s
11. 8.482 relativity, c. 1960s

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- 12. Cluster diagrams, c. 1960s
- 13. Complex variables, c. 1960s
- 14. Diff eqns of math phys, c. 1960s

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- 1. Electrodynamics, c. 1960s
- 2. Harvard course outlines astronomy, c. 1960s
- 3. Mathematical equations, c. 1960s
- 4. Operational math, c. 1960s
- 5. Problem set, c. 1960s
- 6. Relativity and Hydro – Astronomy 424, c. 1960s
- 7. Star course graphs etc. c. 1960s
- 8. Student discussion of star cluster statistics, c. 1960s
- 9. Physics 8 final examination, May 19, 1960
- 10. Physics 509 – midterm examination, November 8, 1960
- 11. Physics S-6, 1960
- 12. Possibilities for pub. 1960
- 13. Physics 509 final examination, January 24, 1961
- 14. Physics H 352 lectures, 1961
- 15. Physics H 352 lectures, 1961
- 16. Physics S-6 take-home exam, 1961
- 17. 8.481, 1964

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- 1. 8.481T from 1964
- 2. 8.482 problems, 1964
- 3. 8.481T, 1965
- 4. 8.481T – problem old assignments, 1965
- 5. Relativity and thermodynamics, 1965
- 6. Some problem solutions S.S. & E.S. – Abraham? 1965
- 7. Astrophysics curriculum, 1965-1966
- 8. 8.482, 1966
- 9. 8.481T final stellar states, 1966
- 10. 8.482 MS evolution not criterion, 1966
- 11. Star course – I, 1966
- 12. Tables for nuclear reactions, 1966
- 13. MIT physics general examination, April 1967
- 14. 8.72 problem sets & quizzes, 1967
- 15. MIT 8.72 problem sets & final exam, 1967
- 16. Stonybrook, 1967
- 17. Astrophysics seminar 8.482, 1968 spring
- 18. Stellar physics courses, fall 1968

**Box 25**

- 1. Astrophysics, 1968
- 2. MIT physics Doctor's general examination, 1968-1969
- 3. 404 Problem solns. C. 1970s

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5. Star course problems Set V, c. 1970s
6. Astronomy problem sets, c. 1970s-1980s
7. Becker's lecture notes, c. 1970s-1980s
8. Star course prospectus MIT, 1970
9. MIT physics 8.08 lectures and problem sets, 1971
10. Physics 8.08 MIT, 1971
11. Quantum physics 8.08, 1971

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2. 404 course outlines, 1973
3. 8.481T Stat Mech, 1973
4. Problem sets – physics of the stars, 1973
5. Derivation, 1974
6. Problem set and data, 1976
7. Astronomy/physics 404 problem sets, c. 1980s
8. Complete problem sets Stellar Evolution, c. 1980s
9. Peripheral material for problem sets – Stellar Evo, c. 1980s
10. Some Iben 404 problem solutions, c. 1980s
11. ASTR 304 – III, 1986-1987
12. 1987 – 404 notes
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14. ASTR 304 – II, 1987
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16. SN 1987a
17. ASTR 305 I, 1988
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4. Supernovae problem set, 1989
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6. ASTR 210 1991 fall
7. ASTR 210 mostly planets, 1991
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9. Solar neutrinos, 1991
10. One zone nova model, 1992
11. 8.481T '65-'66 polytropes, 1993
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13. Electric fields in stars, 1993
14. Statistics – Bose, 1993
15. 305 / 1994 Galaxies -> Big Bang
16. AST 305/94 – ISM

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- 17. AST 305/94 planets
- 18. AST 210 / 1996 review for 3d exam
- 19. AST 210 syllabus and correspondence, 1996/97

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- 2. ASTR 210 – galaxies 1, 1996
- 3. ASTR 210 – galaxies 2, 1996
- 4. Astronomy 210 – handouts, 1996
- 5. Astronomy 210 – planets, 1996
- 6. ASTR 210 stars, 1996
- 7. For Astr 210 Abell 6<sup>th</sup> Ed pictures, 1996
- 8. Problem sets, 1998
- 9. Problem assignments – 404, 1998 spring

**Series 4: Research and Professional Engagement, 1958-2006**

This series contains research notes and equations; graphs, figures, and data; and publication notes and drafts. This includes works with research partners such as Tutukov, Eggen, Ehrman, Faulkner, Fujimoto, Renzini, Rood, Simoda, Tuggle, Weideman, and Jordan. Some topics include: cepheids, Hyades superclusters, red giants, globular clusters, horizontal branch, helium dwarfs, metal poor stars, and solar neutrinos. This series is arranged alphabetically.

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- 1. Analysis, c. 1980s
- 2. Analytic evolution and pulsation, 1971
- 3. Ann Rev Article -1, 1966
- 4. Ann Rev Ast & Ast paper, 1967
- 5. Anti.ph, 1998 May
- 6. Asano and Sugimoto, c. 1970
- 7. Astronomical data, nuclear data, 1961
- 8. Astrophysics and envelopes, 1961
- 9. B<sup>2</sup>FH after 40 years
- 10. Beta decay reactions, notes 2002
- 11. Beta processes notes, c. 2000s
- 12. Big Picture Diagrams, c. 1980s-1990s
- 13. Blue Stragglers, 1986-1987
- 14. Bolometric corrections, Te, B-V, etc. c. 1960s
- 15. Boston paper, c. 1960s
- 16. Boston paper – abstract for Boston paper, April 1962
- 17. Bound electrons and nuclear reactions, c. 1960s
- 18. Boyarchuk visit, 1992
- 19. Cal Tech, miscellaneous, c. 1960s
- 20. Cameron – degenerates and Roche-Lobe, 1985
- 21. Cepheids and supernovae graphs, c. 1970s
- 22. Cepheids and theory, 1972
- 23. Cepheid giants, 1971

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3. Christy's opacity formula, c. 1970s
4. Comments, 1961
5. Conductive opacity tables, 1972
6. Convection paper – Pessi summer, 1962
7. Cox Opacities, 1964
8. Cox opacities – interiors envelopes, c. 1960s
9. Cox opacity – models, March 1962
10. Cox opacity – preliminary for Cox Opacities, 1961-1962
11. Diary like comments, 1964-65
12. Eggen & Iben, 1987
13. Eggen & Iben, 1989
14. Eggen & Iben – blue stragglers and Be, 1987
15. Eggen & Iben – Hyades superclusters, 1987
16. Eggen & Iben – Red Giant branches, 1988
17. Eggen & Iben – Sirius supercluster, 1987
18. Ehrman – ApJ paper, 1961

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1. Ehrman – Diagrams for Iben & Ehrman paper returned after publication, 1962
2. Ehrman – Iben & Ehrman papers, 1962
3. Ehrman – Iben – Ehrman stuff, 1961
4. Electrons – bound electrons & reaction rates, 1969
5. Electron conduction, 1967
6. Electron equations – Eqn of state & neutrinos, 1972
7. Energy gen. 1962-1963
8. Energy generation and energy flow in M.M.S. stars, 1960
9. Enrique – burn.4figs, 1996-1997
10. Envelope equations – discussion of envelope eqns surface boundary condition Williams College, 1961
11. Envelope – last word on Envelope, 1962
12. Envelope solars – ancient, 1961

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1. Ergma – Tutukov Shell Source one zone approximation, 1979-1988
2. Evolution 1, 1963-1964
3. Evolution 1, 1964
4. Evolution 1 (~1965) glossies
5. Evolution 1 – the approach to the Main Sequence, 1964-1965
6. Evolution II, c. 1960s
7. Evolution III, IV, and V figures, 1965
8. Evo VI & VII pictures, c. 1960s
9. Evolution VII glossies, c. 1960s
10. Evolution – ancient idiocy, 1961
11. Evolution of population II stars data & figures, 1966

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13. Faulkner and Iben, c. 1960s
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15. Faulkner Iben The Solution! 1968
16. FG Sage – Iben & Livio, 1992
17. Fitting H-R & M-L, c. 1960s
18. Fowler, William, 1987-1988
19. Fujimoto – He shell burning – Fujimoto & Iben, 1991
20. Fujimoto, Iben, MacDonald CV Evolution, 1992
21. Fujimoto – Iben – SHB, etc. 1989
22. Fujimoto nova 1, c. 1990s
23. Fujimoto nova 1 diffusion and mixing IFM, 1991
24. Fujimoto nova 1 Iben & Fujimoto accretion & diffusion, 1991
25. Fujimoto nova 3 IFM – text, 1991
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1. Fujimoto nova 4, 1992
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3. Fujimoto nova CV mass-transfer rates, 1991
4. Fujimoto nova mass transfer in CVs, 1991
5. Fujimoto nova mass transfer rates in nova precursors, 1991
6. Fujimoto visit, 1992
7. Funny referee reports and author rebuttals summer 1968 solar and stuff
8. Giant molecular clouds, 1992
9. Globular Cluster Stars, 1982
10. Globular clusters, 1971
11. Globular clusters – TRG/THB, 1968
12. Gravity – PASP article on grav. cont. due Dec. 15, 1987
13. Hayashi – v losses , 1961-1964
14. He accretion paper quasistatic calculations, 1989
15. Helium-burning reactions notes, 1964-2002
16. He dwarfs merging He dwarfs – originals, c. 1980s

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1. He dwarf stuff, 1985-1987
2. He flashes, .378 remnant, 1981-1982
3. Hobbs – lithium, 1988-1989
4. Horizontal branch, 1965-1967
5. Horizontal branch, 1965-1966
6. Horizontal branch stuff, c. 1960s
7. Huchra & Iben II, c. 1970s
8. Huchra & Iben II – glossies, 1971
9. IBM system/360 Reference Data, undated
10. Ions in Stellar Plasmas, 1969
11. Japan – JSPS report, 1991

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14. Kato & Hachisu, 1998
15. Kato & Iben I & II, 1992

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2. Keller-Meycroft abundancies opacity, c. 1958-1961
3. Kick II notes, 1995-1996
4. Kiel '90 research notes
5. Literature (?) models, 1959-1961
6. Low mass stars, 1963
7. LMXBs/Aspen, c. 1990s
8. LMXB & HMXB notes – x-ray papers-comments, 1994
9. M15 glossies for M15 paper, 1968
10. MacDonald & Iben II, 1986 February
11. Machos, 1994
12. Mass transfer in binaries, 1978
13. Massive Stars – “vivid,” 1963
14. McGetchin – Gerlogg reprints, 1970
15. Mergers, 1989
16. Metal Poor Stars I glossies, c. 1970s
17. Metal Poor Stars I – Rood, c. 1970s

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1. Metal Poor Stars I graphs – Rood, c. 1970s
2. Metal Poor Stars – glossies for solar neutrinos & metal poor I, II, etc. Nature (Iben & Rood), Dec. 1969
3. Metal Poor Stars II – Rood, c. 1970s
4. Metal Poor Stars – diagrams for metal poor stars III, 1969
5. Metal Poor Stars V, c. 1970s
6. Middle Main Sequence stars, 1961
7. Misc. on Massive Stars, 1962
8. MIT miscellaneous, 1966-1967
9. Monsters, 1963
10. Mosster Stars Fowler, Dyson, Feynman, 1962-1963
11. Monster Stars – relativistic eqns for monster stars, 1963
12. Morrison, 1966
13. M.S. & observatories paper, 1963
14. M.S. – pictures for M.S. papers, c. 1960s
15. NASA Phys Council, 1969
16. Nature on  $Y_c$ ,  $t_c$ , 1969

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1. Neil Divine's He stars, 1969
2. Neutrino – Chapter 14 current-current weak interaction & associated neutrino losses notes, 2005
3. Neutrino – glossy for neutrino & correction, 1969

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4. Neutrino oscillation notes, 2004-2005
5. Neutrino processes, 1965
6. Neutron capture, c. 1960s-1970s
7. Neutron density algorithms, 1989
8. Note on O.S. Wilson's method, 1960
9. Nuclear reaction rates, 1963
10. Nuclear reaction rates – miscellaneous on reaction rates, etc. 1964
11. NY Nov 1963
12. Oct, 1962
13. Odds and Ends research notes, c. 1980s-1990s
14. Opacities and  $^{13}\text{C}(\text{d},\text{n})^{16}\text{O}$  Clayton, Rogers, 1992
15. Orbit book notes, 2002

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1. Paper II, c. 1964
2. Paper II, 1964
3. Paper III xeroxes, 1965
4. Paper VI – rough, c. 1960s
5. Paper VII, 1966
6. Physics reports, 1994
7. Piersanti -2 notes on article, 1999
8. Piersanti, Gagliardi, Iben, & Tornambe WD Mergers with Rotation II, 2003
9. Pop II stars, c. 1960
10. Pulsars – kinematics of pulsars runaway OB stars & x-ray binaries, 1996
11. Pulsars – velocities of pulsars, 1995
12. Pulsation – Obese theory, 1971
13. Pulsation – W Cen pulsation stuff, 1959-1971

**Box 39**

1. Pulsations notes, 1970
2. Pulsations notes, 1968-1970
3. Rcr8 – early version, 1995
4. Red Giants, 1992-1996
5. Red Giant algorithm, c. 1970s
6. Red Giants – glossies for Low Mass Red Giants & Electron Conduction, 1968-1969
7. Red Giants – graphs for conduction & red giant paper, c. 1970
8. Red Giants – Low Mass Red Giants, c. 1960s
9. Red Giants – orig. figs – Dec 1992
10. Red Giant paper, 92/93
11. Red Giants – screening, 1968-1969
12. Red Giants – screening, 1968-1969
13. Relaxation eqns for Li=Li=0
14. Renzini – Iben and Renzini ARAA, 1982

**Box 40**

1. Renzini – Iben and Renzini ARAA, 1981-1985
2. Renzini – Iben and Renzini – Phys Rep. 1981

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3. Research notes, 1986-1987
4. Research notes DDE's, 1985-1987
5. "Role of the Computer in Astrophysics" notes, correspondence draft, chapter for Taub, 1968
6. Rood and Iben figures, c. 1970
7. Rood and Iben paper Nature M15 paper, c. 1960s
8. Rood, Iben, Simoda – glossies M.P. – III, fall 1969
9. Roods' table & curves, c. 1970
10. Rood's Thesis, c. 1970s
11. Rotation, 1965
12. RR Lyrae – analysis of RR Lyrae pulsations, 1970
13. RR Lyrae and Cepheids- transition lane stuff, 1966
14. RR Lyrae notes and graphs, c. 1960s
15. RR Lyrae period changes, c. 1960s
16. Rutgers, 1994
17. Sagb 10.5 computing runs, 1996-1998
18. Schönberner – HD 128220, 1990-1991
19. Sci Ann glossies, etc. 1969-1970
20. Sci Ann initial stuff, 1969

**Box 41**

1. Science Article, 1966
2. Science Article, 1966
3. Science Article, c. 1960s
4. Shell Halving Algorithm notes, 1967
5. Simoda, 1969-1970
6. Simoda & Iben, 1970
7. Simoda & Iben glossies, c. 1960s
8. Sins Reports, 1964
9. Snyder, Lew, 1997-2006
10. Snyder/NAS, 1999
11. Solar Neutrinos, 1969-1970
12. Solar Neutrinos – Be<sup>7</sup> bound-electron capture, 1966-1967
13. Solar Neutrinos – Convective Cores and Solar Neutrinos fluxes, 1968
14. Solar Neutrino fluxes, 1962-1963

**Box 42**

1. Solar Neutrinos – MSW & Neutrinos notes, 1986
2. Solar Neutrinos – neutrino stuff, 1969
3. Solar Neutrinos notes, 1986/7
4. Solar Neutrinos – original graphs for solar neutrino paper, c. 1960s
5. Solar Neutrino stuff, fall 1968
6. Solar Neutrinos – SN type II's! 1969-1972
7. Solar Neutrinos – Solar Panel, 1969-1970
8. Solar V's, 1968
9. Solar V's – extracts for solar v's, 1968
10. Solar V glossies Ann Phys, 1969

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11. Soliloquy, 1965-1967
12. Space center proposal, 1965
13. S-process algorithm, 1988
14. Star bursts, blue stragglers, & binary stars in local superclusters notes, 1988
15. Stars -> gas -> stars? 1965

**Box 43**

1. Stellar element production very ancient, c. 1980s-1990s
2. Stellar evolution -  $9 M\odot$ , c. 1960s
3. Stellar evolution studies project No: DSR 70469, c.1970s
4. Stony Brook – glossies for Chive(?) 1969 summer at Stony Brook
5. Stromlo/calculations by hand – I, 1986
6. Stromlo calcs II, 1986
7. Supernovae – ideas, 1969 summer
8. Symbiotic Stars, 2002
9. Symbiotics, 1994
10. Time constant loci, 1965
11. Time scales for energy flow a la Henry et al, notes 2002
12. Tuggle, 1972
13. Tuggle & Iben, 1972
14. Tuggle & Iben, c. 1972
15. Tuggle – Becker, Iben, and Tuggle refs report/cepheids, 1977
16. Tutukov '92 visit
17. Tutukov 1993 visit + 1994
18. Tutukov '95 visit to University of Illinois
19. Tutukov – binaries – CVs, c. 1980s
20. Tutukov – Binaries & PNe, 1987

**Box 44**

1. Tutukov – correspondence with Sasha, Tornambe, 1985-1986
2. Tutukov/Garcia Berro/Ritossa, 1996 visits
3. Tutukov – Iben '89 originals
4. Tutukov – Iben '93a – original figures, 1993
5. Tutukov – Iben 93a Tables, 1993
6. Tutukov – Iben 93 – stuff omitted, 1993
7. Tutukov – Iben '94 – He-accreting WDs-Sne? SSXRS? 1994
8. Tutukov – Iben – accreting WDs, 1988
9. Tutukov – Iben book text, c. 1980s
10. Tutukov – Iben Double PNNi – Mexico, 1987
11. Tutukov – Iben SN CO WD & He donor, 1994
12. Tutukov – Iben – Texas – PMTs, c. 1980s
13. Tutukov – Iben – WD mergers, 1987
14. Tutukov – nova-like RV in M31 – Rich, 1991
15. Tutukov – RV in M31, 1991-1992
16. Tutukov – Triple Stars, 1998
17. Tutukov – Triple Stars – appendix, 1998

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18. Tutukov, Yungelson, Iben, c. 1991
19. Tutukov, Yungelson, Iben – double degenerates, 1996
20. Tutukov, Yungelson, Iben – double degenerates TYI 97, 1996
21. Tutukov, Yungelson, Iben – notes for ITY93, 1993-1994
22. Tutukov, Yungelson, Iben – supernova frequencies TYI – 1991

**Box 45**

1. Turbulence spring & summer '62
2. University of Illinois digital computer/data, 1961
3. USco, 1989-1992
4. VAD with H<sub>2</sub> included, 1961
5. Webbink & Iben II, 1988
6. Weidemann, Jordan – Hyades, c. 1990s
7. Weidemann, Jordan – Hyades, additional material, 1987-1990
8. Weidemann, Jordan – Hyades, missing WD's, 1975-1990
9. Weidemann, Jordan – Hyades paper, 1991-1992
10. Weidemann, Jordan – Hyades supercluster, 1991
11. Weidemann, Jordan – Hyades supercluster, additional material, 1988-1991
12. Weidemann-Kiel, 1990
13. White Dwarfs – Laughlin, 1988
14. White Dwarfs – with Laughlin, 1986-1988
15. Williams College c. 1960s
16. Williams College – unlabeled notes, c. 1958-1961
17. Williams learning Astro by myself at Williams, c. 1958-1961
18. Williams teaching stellar interior physics to myself at Williams, c. 1958-1961

**Box 46**

1. Woosley – SNI 1/2, c. 1980s
2. Writing commitments, 1989-1990

**Series 5: Talks, Lectures, and Conferences, 1960-2003**

This series contains talk, lecture, and seminar outlines, abstracts, and transcripts; as well as conference schedules, correspondence, and notes. This series is arranged chronologically.

**Box 46**

This series is arranged chronologically, and alphabetically within year.

3. Remnants of Williams College fac. Talk, c. 1960s
4. Sins Seminar with Michel faculty table, c. 1960s
5. Energy generation and energy flow in M.M.S. Stars colloquium talk, c. 1960s
6. Yerkes and Harvard talks, c. 1960s
7. Kellogg Seminar Iben – 1961 – 1 day notice
8. Stellar Structure and Evolution, 1961
9. Program of the One Hundred-Twelfth Meeting of the American Astronomical Society, December 27-29, 1962
10. Boston Talk / Tucson Talk, 1963
11. NASA Talk, Nov. 1963

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12. International Symposium on Gravitational Collapse and other topics in Relativistic Astrophysics, December 16-18, 1963
13. MIT Talk, 1964
14. Texas '64 Conf. on Rel. Astro
15. Compass Seminars, 1964-1966
16. NASA Nucleosynthesis Conf – Jan 1965
17. MIT Physics Colloq. also Brandeis, 1965 Jan 7
18. Berkeley 12/66
19. Seventh Eastern Theoretical Physics Conference at The University of Massachusetts Amherst, October 18-19, 1968
20. Amherst – Dartmouth talks, 1969
21. Boulder 1969 Abstract American Physical Society meeting
22. Boulder APS talk, 1969
23. Solar v Talk, 1969

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1. Stony Brook Third Summer Institute for Astronomy & Astrophysics, June-July, 1969
2. Members of Solar Panel of Astronomy Survey Committee, c. 1970s
3. Rice Talk, c. 1970s
4. Toronto – talk 1, c. 1970s
5. Toronto – talk 2, c. 1970s
6. 1970 “Engagements”
7. AAS Boulder – June 1970 talk on Globular Clusters
8. Church talk, 1970
9. 1970 IAU
10. IAU, 1970
11. New York Academy and Columbia, 1970
12. Stony Brook, Dec. 1970
13. Charlottesville Fall '71
14. Sins Talk 1/12/71
15. Toronto – Talk 3, 1971
16. University of Toronto-June Institute on Modern Astrophysics, 1971
17. 1971-72 talks
18. Cambridge (1978) – “Weirdos”
19. Stellar Instabilities – Montreal, 78
20. Ba & CH Stars in Binaries, c. 1980s
21. Binary Star – Hodgepodge Evolution, c. 1980s
22. Binary WDs & GWR Santa Barbara, c. 1980s
23. Close Binaries / Common Envelope Evolution, c. 1980s
24. Close Binary Evolution A Hodgepodge, c. 1980s
25. Close Binary Evolution Mass Transfer & Ang. Mom. Loss, c. 1980s
26. Convective Dredge – up in AGB Stars – with eqs. c. 1980s
27. Gravitational wave properties of close WDs, c. 1980s
28. Introduction to Close Binaries, c. 1980s
29. Mixing in Accreting White Dwarfs & Novae Composition Abano-Terme talk, c. 1980s

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- 30. Opacities lecture notes, c. 1980s
- 31. SNeIa, c. 1980s
- 32. SNeIa Scenarios Spain, c. 1980s
- 33. SNIa – New Orleans, c. 1980s

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- 1. Solar v talk, c. 1980s
- 2. S-process in H-accreting WDs? C. 1980s
- 3. URCA in accreting co white dwarf, c. 1980s
- 4. AGB evolution planetary nebula formation., c. 1980s-1990s
- 5. Calgary – He shell flashes, c. 1980s-1990s
- 6. Ringberg Talk SUI, c. 1980s-1990s
- 7. TP AGB & s-Process C&M star distribution, c. 1980s-1990s
- 8. Trieste – mass loss on AGB & C star formation, c. 1980s-1990s
- 9. Dredge Up, s-process SNeIa (~1980) Chile
- 10. Red Giants – Erice (1980)
- 11. CTIO – Chile, Nov. ‘81
- 12. Pulsation – Crimea (~1982)
- 13. Washington, DC (1982) AGB & C Stars
- 14. Z=0 stars, Vulcano (1982)
- 15. AGB – Geneva (1983) C star calcs.
- 16. Double Deg Scenario for SNeIa Erice (1983)
- 17. Darwin Lecture (84)
- 18. Erice: An Essay on SNI Precursors, 1984 OVERSIZE
- 19. Webbink – Iben, 1984-1987

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- 1. Cameron’s Birthday IaSNe talk ('85)
- 2. NAS inauguration lecture 1985 binary star evolution
- 3. Ringberg summary talk (1985)
- 4. Munich, May '85 talk  $^{13}\text{C}$  & Dredge-up
- 5. Binary Star Evolution II – Canberra (1986)
- 6. Blue Stragglers Rome (1986)
- 7. Canberra '86 SNeIa
- 8. Galaxy, 1986
- 9. SNeIa – Cornell (1986)
- 10. SNIa Talks (1986)
- 11. Type Ia – Canberra ('86)
- 12. Spring '87 Colloquia
- 13. Physics Colloquium prep – SN 87A, 1987
- 14. Cerro Tololo – Jan '87
- 15. SN87A U. of IU (3/12/87)
- 16. Aspen – May '87
- 17. Tucson-Faint Blue Stars 6/87
- 18. Meetings upcoming, 1987-1988
- 19. Blue Stragglers CTIO Birthday, 1988

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20. Cerro Tololo 25<sup>th</sup> birthday AGB & c-stars, 1988
21. CS-870 Baltimore, 1988
22. Indiana Talk PNN composition, 1988
23. Strongen ('88) & Georgia Tech AGB stars, nucleosynthesis & dredge-up
24. AGB structure, dredge-up, neutron sources Druzba, 1989
25. Close binary evolution U. of Penn, 1989
26. CO WD & He WD Mergers Moscow talk, 1989

**Box 50**

1. Helium CVs – Santa Fe, 1989
2. Diffusion in accreting WDs Japan, 1989 fall
3. Kinematics of several types of evolved close binaries Iben & Tutukov – Texas, 1989
4. STSI (89?)  $M_I \rightarrow M_f$
5. 1989 – Russell Lecture talk outlines
6. Versailles (89) – Solar v's
7. Binary star evolution, c. 1990s
8. Computational requirements talk, c. 1990s
9. Globular cluster ages, c. 1990s
10. Some of Kiel talk – Born Again evolution, c. 1990s
11. Opacity talk, c. 1990s
12. Screening factors in MS stars, c. 1990s
13. St. Louis talk, c. 1990s
14. WD “cooling” talk, c. 1990s
15. Kiel ('90) Binary Star Evolution
16. Korea, Nov. 5-13, 1990
17. Nova talk, 1991-1992
18. Innsbruck talk, 1992
19. SNeIa – Hodgepodge of viewgraphs, 1992
20. Born Again stars & H-Deficient stars – proceedings of the 9<sup>th</sup> European workshop on White Dwarfs, 1994
21. SETI, 1994
22. Baumberg Talk (95) – RC&B Scenarios

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1. Popular Talk – Georgia, 1995
2. Symbiotic Stars 1995 colloquium
3. LMXBs & HMXBs, Feb. 20, 1995
4. SNIa – Iowa State 10/7/96
5. Cox Fest -97
6. Stockholm '97
7. Turkey '98 general talk
8. Belgium/Liege/1999
9. Mass transfer when donor is an AGB star – MIT /99
10. MIT /99 Asymmetrical planetary Nebulae II: From origins to Microstructures conference
11. LMXBs -> MSPs (Chicago), 2002
12. Perlmutter, 2003

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This series contains Iben's publications, as well as a publication list. This series is arranged chronologically.

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1. 1958, 1961, 1962
  - a. Iben Jr, Icko. "Higher Order Effect in the B Decay of P<sup>32]." March 1958</sup>
  - b. Iben Jr, Icko & Ehrman, John R. "The Internal Structure of Middle Main-Sequence Stars." May 1962
2. 1963
  - a. Iben Jr, Icko. "Massive Stars in Quasi-Static Equilibrium." June 1963
  - b. Iben Jr, Icko. "A Comparison between Homogenous Stellar Models and the Observations." August 15, 1963
3. 1964
  - a. Iben Jr, Icko. "Evolution through Alpha-Burning (M = 3 → 15 M<sub>⊙</sub>). Abstract. October 1964
  - b. Iben Jr, Icko. "Gravitational Collapse." September 1964
4. 1965
  - a. Iben, Icko. "Stellar Evolution through Helium Burning." January 1965
  - b. Iben Jr, Icko. "Stellar Evolution I. The Approach to the Main Sequence." April 1965
  - c. Iben Jr, Icko. "Stellar Evolution. V. The Evolution of A 15 M<sub>⊙</sub> Star from the Main Sequence through Core Helium Burning." July 1965
  - d. Iben Jr, Icko. "Stellar Evolution. II. The Evolution of a 3 M<sub>⊙</sub> Star from the Main Sequence through Core Helium Burning." November 1965
5. 1966
  - a. Iben Jr, Icko. "Stellar Evolution. III. The Evolution of a 5 M<sub>⊙</sub> Star from the Main Sequence through Core Helium Burning." February 1966
  - b. Iben Jr, Icko. "Possible Models of Horizontal Branch Stars." April 1966
  - c. Faulkner, J. & Iben Jr, Icko. "The Evolution of Population II Stars." June 1966
  - d. Iben Jr, Icko & Talbot, Raymond J. "Stellar Formation Rates in Young Clusters." June 1966
  - e. Faulkner, John; Iben Jr, Icko; & Wilson, Olin C. "Age-Helium Correlations for Two Low-Mass Field Binary Systems." October 1966
  - f. Iben Jr, Icko. "Evolution to the Giant Phase for Low-Mass Population I Stars." Abstract. November 1966
  - g. Iben Jr, Icko. "The Early Evolution of Stars Between One and Three Solar Masses." 1966
6. 1967
  - a. Iben Jr, Icko. "Stellar Evolution: Comparison of Theory with Observation." February 1967
  - b. Iben Jr, Icko. "Stellar Evolution. VI. Evolution from the Main Sequence to the Red-Giant Branch for Stars of Mass 1 M<sub>⊙</sub>, 1.25 M<sub>⊙</sub>, and 1.5 M<sub>⊙</sub>." February 1967
  - c. Iben Jr, Icko. "Stellar Evolution. VII. The Evolution of a 2.25 M<sub>⊙</sub> Star from the Main Sequence to the Helium-Burning Phase." February 1967
  - d. Iben Jr, Icko; Kalata, Kenneth; & Schwartz, Judah. "The Effect of Be<sup>7</sup> K-Capture on the Solar Neutrino Flux." December 1967
  - e. Iben Jr, Icko. "Stellar Evolution Within and Off the Main Sequence." 1967
7. 1968
  - a. Simoda, Mahiro & Iben Jr, Icko. "Heavy-Element Abundances and the Interpretation of Globular Cluster Characteristics." May 1968

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- b. Iben Jr, Icko & Faulkner, John. "On the Age and Initial Helium Abundance of Extreme Population II Stars." July 1968
- c. Rood, Robert & Iben Jr, Icko. "On the Variation of Globular-Cluster Characteristics with Age." October 1968
- d. Iben Jr, Icko. "Age and Initial Helium Abundance of Stars in the Globular Cluster M<sub>15</sub>." October 1968
- e. Iben Jr, Icko. "Solar Neutrinos and the Solar Helium Abundance." October 1968
- f. Iben Jr, Icko. "Electron Conduction in Red Giants." November 1968
- g. Iben Jr, Icko. "Low-Mass Red Giants." November 1968
- 8. 1969
  - a. Iben Jr, Icko. "Central Convection and Solar Neutrinos." 20 January 1969
  - b. Iben Jr, Icko. "Central Conviction and Solar Neutrinos." February 1969
  - c. Iben Jr, Icko. "The CI<sup>37</sup> Solar Neutrino Experiment and the Solar Helium Abundance." August 1969
  - d. Iben Jr, Icko & Rood, Robert T. "Age and Initial Helium Abundance of Globular Cluster Stars." August 30, 1969
  - e. Iben Jr, Icko; Rood, Robert T; Strom, Karen M; & Strom, Stephen E. "Ratio of Horizontal Branch Stars to Giant Red Stars in Globular Clusters." December 6, 1969
- 9. 1970
  - a. Iben Jr, Icko & Rood, Robert T. "Metal-Poor Stars. I. Evolution from the Main Sequence to the Giant Branch." February 1970
  - b. Iben Jr, Icko. "Globular Cluster Stars." July 1970
  - c. Iben Jr, Icko & Rood, Robert T. "Metal-Poor Stars. III. On the Evolution of Horizontal-Branch Stars." August 1970
  - d. Iben Jr, Icko & Huchra, John. "On the Helium Abundance in the Envelopes of the Bluest RR Lyrae Stars in Globular Clusters." October 1970
  - e. Abraham, Zulema & Iben Jr, Icko. "The Abundance of <sup>3</sup>He and <sup>4</sup>He in the Initial Sun Implied by the Kocharov and Starbumov Assumption." November 1970
  - f. Iben Jr, Icko. "The Role of the Computer in Astrophysics." 1970
  - g. Simoda, Mahiro & Iben Jr, Icko. "Time-Constant Loci and Theoretical Luminosity Functions for Metal-Deficient Clusters." 1970
- 10. 1971
  - a. Iben Jr, Icko. "On the Specification of the Blue Edge of the RR Lyrae Instability Strip." 1971 May 15
  - b. Iben Jr, Icko & Huchra, John. "Comments on the Instability Strip for Halo Population Variables." May 24, 1971
  - c. Iben Jr, Icko. "A Conjecture Concerning the Transition Period for Variable Stars." 1971 September 1
  - d. Abraham, Zulema & Iben Jr, Icko. "More Solar Models and Neutrino Fluxes." 1971 November 15
- 11. 1972
  - a. Iben Jr, Icko & Tuggle, Roy Slaton. "On an Apparent Discrepancy Between Pulsation and Evolution Masses for Cepheids." 1972 April 1

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- b. Iben Jr, Icko. "Cepheids, Supernovae, and the  $^{12}\text{C}(^n\text{,} \gamma) ^{16}\text{O}$  Reaction." Iben Jr, Icko. 1972 December 1
  - c. Iben Jr, Icko & Tuggle, Roy Slatton. "Comments on a PLC Relationship for Cepheids and on the Comparison Between Pulsation and Evolution Masses for Cepheids." 1972 December 1
  - d. Tuggle, Roy Slatton & Iben Jr, Icko. "On the Location of Pulsational Blue Edges and Estimates of the Luminosity and Helium Content of RR Lyrae Stars." 1972 December 1
  - e. Iben, I. "Normal Stellar Evolution." 1972
  - f. Iben Jr, Icko. "Horizontal-Branch and Post Horizontal-Branch Evolution." 1972
12. 1973
- a. Iben Jr, Icko. "On the Abundance of Lithium in Red Giants of Intermediate Mass." 1973 October 1
  - b. Tuggle, Roy Slatton & Iben Jr, Icko. "Comments on Nodal Quenching and on Convective Quenching in RR Lyrae Stars." 1973 December 1
  - c. Whelan, John & Iben Jr, Icko. "Binaries and Supernovae of Type 1." 1973 December 15
  - d. Iben Jr, Icko. "Presupernova Evolution." 1973
13. 1974
- a. Iben Jr, Icko. "Post Main Sequence Evolution of Single Stars." 1974
  - b. Iben Jr, Icko. "The Theoretical Situation." 1974
14. 1975
- a. Iben Jr, Icko. "Thermal Pulses;  $p$ -Capture,  $\alpha$ -Capture,  $s$ -process Nucleosynthesis; and Convective Mixing in a Star of Intermediate Mass." 1975 March 1
  - b. Iben Jr, Icko. "Neon-22 as a Neutron Source, Light Elements as Modulators, and  $s$ -Process Nucleosynthesis in a Thermally Pulsing Star." 1975 March 1
  - c. Iben Jr, Icko & Tuggle, Roy Slatton. "On the Intrinsic Properties of Cepheids in the Galaxy, In Andromeda, and in the Magellanic Clouds." 1985 April 1
15. 1976
- a. Iben Jr, Icko. "Solar Oscillations as a Guide to Solar Structure." 1976 March 15
  - b. Lamb, Susan A; Iben Jr, Icko; & Howard, Michael. "On the Evolution of Massive Stars Through the Core Carbon-Burning Phase." 1976 July 1
  - c. Iben Jr, Icko. "Further Adventures of a Thermally Pulsing Star." 1976 August 15
  - d. Iben Jr, Icko & Mahaffy, John. "On the Sun's Acoustical Spectrum." 1976 October 1
  - e. Iben Jr, Icko. "The Astrophysicist and The Computer." 1976
16. 1977
- a. Truran, James W. & Iben Jr, Icko. "On  $s$ -Process Nucleosynthesis in Thermally Pulsing Stars." 1977 September 15
  - b. Lamb, Susan A; Howard, Michael; Truran, James W; and Iben Jr, Icko. "Neutron-Capture Nucleosynthesis in the Helium-Burning Cores of Massive Stars." 1977 October 1
  - c. Iben Jr, Icko. "Thermal Pulse and Interpulse Properties of Intermediate-Mass Stellar Models with Carbon-Oxygen Cores of Mass 0.96, 1.16, and 1.36 M $\odot$ ." 1977 November 1
  - d. Becker, Stephen Allan; Iben Jr, Icko; & Tuggle, Roy Slatton. "On the Frequency-Period Distributions of Cepheid Variable in Galaxies in the Local Group." 1977 December 15
  - e. Iben Jr, Icko. "Stellar Structure and Evolution with Emphasis on the Evolution of Intermediate Mass Stars." 1977

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17. 1978
- a. Iben Jr, Icko. "Urca Neutrino Losses under Conditions Found in the Carbon-Oxygen Cores of Intermediate-Mass Stars." 1978 January 1
  - b. Iben Jr, Icko & Truran, James W. "On the Surface Composition of Thermally Pulsing Stars of High Luminosity and on the Contribution of Such Stars to the Element Enrichment of the Interstellar Medium." 1978 March 15
  - c. Kaler, J.B; Iben Jr, Icko; & Becker, S.A. "On the Enrichment of Helium and Nitrogen in Planetary Nebulae." 1978 September 1
  - d. Iben Jr, Icko. "Thermal Oscillations During Carbon Burning in an Electron-Degenerate Stellar Core." 1978 December 15

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1. 1979
  - a. Becker, Stephen Allan & Iben Jr, Icko. "The Asymptotic Giant Branch Evolution of Intermediate-Mass Stars as a Function of Mass and Composition. I. Through the Second Dredge-Up Phase." 1989 September 15
  - b. Iben Jr, Icko. "Production of the Elements and Enrichment of the Interstellar Medium." 1979
2. 1980
  - a. Iben Jr, Icko & Truran, James W. "On the Surface Composition of Thermally Pulsing Stars of High Luminosity and on the Contribution of Such Stars to the Element Enrichment of the Interstellar Medium." 1978 March 15
  - b. Becker, Stephen Allan & Iben Jr, Icko. "The Asymptotic Giant Branch Evolution of Intermediate-Mass Stars as a Function of Mass and Composition. II. Through the First Major Thermal Pulse and the Consequences of Convective Dredge-Up." 1980 April 1
  - c. Cosner, Kenneth; Iben Jr, Icko; & Truran, James W. "The Effects of Unthermalized Isomeric State and of a Time-Varying Neutron Flux on *s*-Process Branching Ratios." 1980 June 1
  - d. Iben Jr, Icko. "Nucleosynthesis in Evolved Globular Clusters." 1980
3. 1981
  - a. Iben Jr, Icko. "On Intermediate-Mass Single Stars and Accreting White Dwarfs as Sources of Neutron-Rich Isotopes." 1981 February 1
  - b. Iben Jr, Icko. "The Carbon Star Mystery: Why do the Low Mass Ones Become Such, and Where Have all the High Mass Ones Gone?" 1981 May 15
  - c. Iben Jr, Icko. "On the Interior Properties of Red Giants." (and preface) 1981
  - d. Iben Jr, Icko. "The Consequences of Mass Loss from Intermediate-Mass Stars." 1981
  - e. Fujimoto, Masayuki Y; Iben Jr, Icko; & Becker, Stephen A. "Response of Low-Mass Main Sequence Stars to Accretion." 1981
4. 1982
  - a. Iben Jr, Icko & Renzini, Alvio. "Evolution of Single Stars with Emphasis on the Asymptotic Giant Branch Phase of Evolution – Current Status of the Theory and Comparison with the Observations." January 1982
  - b. Iben Jr, Icko. "More on Carbon Burning in Electron-Degenerate Matter: Within Single Stars of Intermediate Mass and Within Accreting White Dwarfs." 1982 February 1

**Box List:** Icko Iben, Jr. Papers, 1950-2006  
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**Box 53**

- c. Iben Jr, Icko. "Hot Accreting White Dwarfs in the Quasi-Static Approximation." 1982 August 1
- d. Iben Jr, Icko & Renzini, Alvio. "The Role of Semiconvection in Bringing Carbon to the Surface of Asymptotic Giant Branch Stars of Small Core Mass." 1982 August 15
- e. Iben Jr, Icko. "Low-Mass Asymptotic Giant Branch Evolution. I." 1982 September 15
- f. Iben Jr, Icko & Renzini, Alvio. "On the Formation of Carbon Star Characteristics and the Production of Neutron-Rich Isotopes in Asymptotic Giant Branch Stars of Small Core Mass." 1982 December 1
- 5. 1983
  - a. Iben Jr, Icko; Kaler, James B; Truran, James W; & Renzini, Alvio. "On the Evolution of Those Nuclei of Planetary Nebulae That Experience a Final Helium Shell Flash." 1983 January 1
  - b. Iben Jr, Icko & Tutukov, Alexander V. "The Evolution of Binaries of Moderate Primordial Mass ( $<\sim 10 M_{\odot}$ ) and the Formation of Transient and Explosive Objects Due to Accumulation Instabilities in Such Binaries." August 1983
  - c. Iben Jr, Icko. "Carbon Star Formation and Neutron-Rich Isotope Formation in Low-Mass Asymptotic Giant Branch Stars." 1983 December 15
  - d. Iben Jr, Icko. "Fundamental Problems and Basic Tests of Stellar Evolution Theory – The Case of Carbon Stars." December 1983
  - e. Iben Jr, Icko & Renzini, Alvio. "Asymptotic Giant Branch Evolution and Beyond."
  - f. Iben Jr, Icko. "Open Questions About the Formation of Heavy Elements in 'z=0' Stars." 1983
  - g. Iben Jr, Icko. "An Essay on Stellar Oscillations and Evolution." 1983
- 6. 1984
  - a. Iben Jr, Icko. "On the Frequency of Planetary Nubla Nuclei Powered by Helium Burning and on the Frequency of White Dwarfs with Hydrogen-Deficient Atmospheres." 1984 February 1
  - b. Iben Jr, Icko & Tutukov, Alexander, V. "Supernovae of Type 1 as End Products of the Evolution of Binaries with Components of Moderate Initial Mass ( $M \lesssim 9 M_{\odot}$ )."
  - c. Iben Jr, Icko & Renzini, Alvio. "Single Star Evolution I. Massive Stars and Early Evolution of Low and Intermediate Mass Stars." March 1984
  - d. Fujimoto, Masayuki Y; Hanawa, Tomoyuki; Iben Jr, Icko; & Richardson, M.B. "Thermal Evolution of Accreting Neutron Stars." 1984 March 15
  - e. Iben Jr, Icko & Tutukov, Alexander V. "Cooling of Low-Mass Carbon-Oxygen Dwarfs from the Planetary Nucleus Stage Through the Crystallization Stage." 1984 July 15
  - f. Iben Jr, Icko & Tutukov, Alexander V. "The Evolution of Low-Mass Close Binaries Influences by the Radiation of Gravitational Waves and by a Magnetic Stellar Wind." 1984 September 15
  - g. Fujimoto, Masayuki Y; Iben Jr, Icko; Chieffi, Alessandro; & Tornambè, Amedeo. "Hydrogen and Helium Burning in Zero-Metal Asymptotic Giant Branch Stars and the Existence of Thresholds (in Core Mass and CNO Abundance) for the Occurrence of Helium Shell Flashes." 1984 December 15

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**Box 53**

- h. Iben Jr, Icko. "Fundamental Problems, and Basic Tests of Stellar Evolution Theory – The Case of Carbon Stars." 1984
- i. Iben Jr, Icko & Tutukov, Alexander V. "An Essay on Possible Precursors of Type 1 Supernovae." 1984
- 7. 1985
  - a. Cameron, A.G.W. & Iben Jr, Icko. "On the Behavior of Double Degenerate Binaries Associated with Type 1 Supernovae." 1986 June 1
  - b. Iben Jr, Icko & Tutukov, Alexander V. "On the Evolution of Close Binaries with Components of Initial Mass Between  $3 M_{\odot}$  and  $12 M_{\odot}$ ." 1985 August.
  - c. Iben Jr, Icko & MacDonald, Jim. "The Effects of Diffusion Due to Gravity and Due to Composition Gradients on the Rate of Hydrogen Burning in a Cooling Degenerate Dwarf. I. The Case of a Thick Helium Buffer Layer." 1985 September 15
  - d. Nomoto, Ken'ichi & Iben Jr, Icko. "Carbon Ignition in a Rapidly Accreting Degenerate Dwarf: A Clue to the Nature of the Merging Process in Close Binaries." 1985 October 15
  - e. Iben Jr, Icko. "Nucleosynthesis in Low and Intermediate Mass Stars on the Asymptotic Giant Branch." 1985
  - f. Tutukov, A.V. & Iben, I. "Formation of Helium Stars with Extended Envelopes in Binaries." 1985
  - g. Iben Jr, Icko. "On the Significance of Mass Loss from Bright Red Giants." 1985
  - h. Iben Jr, Icko. "The Life and Times of an Intermediate Mass Star – In Isolation/In a Close Binary." 1985
- 8. 1986
  - a. Iben Jr, Icko & MacDonald, Jim. "The Effects of Diffusion Due to Gravity and Due to Composition Gradients on the Rate of Hydrogen Burning in a Cooling Degenerate Dwarf. II. Dependence on Initial Metallicity and on Buffer Mass." 1986 February 1
  - b. Kawaler, Steven D; Winget, D.E; Iben Jr, Icko; Hansen, C.J. "Evolutionary Period Changes in Variable Helium-Rich White Dwarfs." 1986 March 15
  - c. Iben Jr, Icko; Fujimoto, Masayuki Y; Sugimoto, Daiichiro; & Miyaji, Shigeki. "Relaxation Oscillations of a Helium-Burning Star: Helium Shell Flashes Not Triggered by the Accumulation of a Critical Mass." 1986 May 1
  - d. Iben Jr, Icko. "On the Evolution of Binary Components Which First Fill Their Roche Lobes After the Exhaustion of Central Helium." 1986 May 1
  - e. Cameron, A.G.W. & Iben Jr, Icko. "On the Behavior of Double Degenerate Binaries Associated with Type I Supernovae." 1986 June 1
  - f. Kawaler, Steven D; Winget, D.E; Hansen, C.J.; & Iben Jr, Icko. "The Helium Shell Game: Nonradial g-Mode Instabilities in Hydrogen-Deficient Planetary Nebulae Nuclei." 1986 July 1
  - g. Iben Jr, Icko & Tutukov, Alexander V. "On the Formation and Evolution of a Helium Degenerate Dwarf in a Close Binary." 1986 December 15
  - h. Iben Jr, Icko & Tutukov, Alexander V. "On the Number-Mass Distribution of Degenerate Dwarfs Produced by Interacting Binaries and Evidence for Mergers of Low-Mass Helium Dwarfs." 1986 December 15
  - i. Iben Jr, Icko. "On the Binary Star Origin of Blue Stragglers." 1986

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- 9. 1987
  - a. Iben Jr, Icko & Tutukov, Alexander V. "Evolutionary Scenarios for Intermediate-Mass Stars in Close Binaries." 1987 February 15
  - b. Fujimoto, Masayuki Y; Hanawa, Tomoyuki; Iben Jr, Icko; Richardson, Martin B. "Thermal Evolution of Accreting Neutron Stars. II. Long X-Ray Bursts as a Probe into the Interior." 1987 April 1
  - c. Iben Jr, Icko; Nomoto, Ken'Ichi; Tornambè, Amedeo; & Tutukov, Alexander V. "On Interacting Helium Star-White Dwarf Pairs as Supernova Precursors." 1987 June 15
  - d. Tornambè, A; Matteucci, F; & Iben Jr, I. "Binary Systems as Supernova Progenitors (Some Frequency Estimates)." August 1987
  - e. Evans, C; Iben Jr, I; & Smarr, L. "Degenerate Dwarf Binaries as Promising, Detectable Sources of Gravitational Radiation." 1987 December 1
  - f. Evans, Charles R; Iben Jr, Icko; & Smarr, Larry. "Degenerate Dwarf Binaries as Promising, Detectable Sources of Gravitational Radiation." 1987
  - g. Iben Jr, Icko. "Mass Loss from Single and Close Binary Stars." 1987
  - h. Iben Jr, Icko. "Helium Shell Flashes and their Consequences." 1987
  - i. Iben Jr, Icko. "On the Binary Star Origin of Eridani B." 1987
  - j. Iben Jr, Icko & Webbink, Ronald F. "On the Formation and Properties of Close Binary White Dwarfs." 1987
  - k. Webbink, Ronald F. & Iben Jr, Icko, "Tidal Interaction and Coalescence of Close Binary White Dwarfs." 1987
  - l. Woosley, S.E. & Iben Jr, Icko. "The Light Curve of Supernovae of Type 1 1/2" Abstract. 1987.
- 10. 1988
  - a. Iben Jr, Icko. "Common Envelope Formation and the Merging of Degenerate Dwarf Binaries." 1988 January 1
  - b. Eggen, Olin J. & Iben Jr, Icko. "Starbursts, Binary Stars, and Blue Stragglers in Local Superclusters and Groups. I. The Very Young Disk and Young Disk Populations." August 1988
  - c. Hollowell, David & Iben Jr, Icko. "Nucleosynthesis of Solar System Material in a Low-Mass, Low-Metallicity Asymptotic Giant Branch Star." 1988 October 1
  - d. Iben Jr, Icko. "Stellar Evolution: Theory and The Real World I. AGB Stars – Fantasy, Fact, and Fantasy." 1988
- 11. 1989
  - a. Eggen, Olin J. & Iben Jr, Icko. "Starbursts, Blue Stragglers, and Binary Stars in Local Superclusters and Groups. II. The Old Disk and Halo Populations." February 1989
  - b. Hollowell, David & Iben Jr, Icko. "Neutron Production and Neutron-Capture Nucleosynthesis in a Low-Mass, Low-Metallicity Asymptotic Giant Branch Star." 1989 May 15
  - c. Fujimoto, Masayuki Y. & Iben Jr, Icko. "Behavior of Low-Mass Main-Sequence Stars in Response to Accretion." 1989 June 1
  - d. Iben Jr, Icko & Laughlin, Gregory. "A Study of the White Dwarf Luminosity Function." 1989 June 1

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**Box 53**

- e. Iben Jr, Icko & Tutukov, Alexander V. "Model Stars with Degenerate Dwarf Cores and Helium-Burning Shells: A Stationary-Burning Approximation." 1989 July 1
- f. Bailyn, Charles D. & Iben Jr, Icko. "On the Origin of Hot Subdwarfs in Globular Clusters." 1989 December 1
- g. Hobbs, L.M; Iben Jr, Icko; & Pilachowski, Catherine. "On Lithium Removal from G Dwarfs." 1989 December 15
- h. Iben Jr, Icko & Tutukov, Alexander V. "Binary Stars and Planetary Nebulae." 1989
- i. Iben Jr, Icko. "Peculiar Red Giants – What Kind of White Dwarfs do they Become." 1989

**Box 54**

- 1. 1990
  - a. Hollowell, David & Iben Jr, Icko. "Algorithms for Neutron Density and s-Process Nucleosynthesis in a Low-Mass Asymptotic Giant Branch Star." 1990 January 20
  - b. Fujimoto, Masayuki Y; Iben Jr, Icko; & Hollowell, David. "Helium Flashes and Hydrogen Mixing in Low-Mass Population III Stars." 1990 February 1
  - c. Hollowell, David; Iben Jr, Icko; & Fujimoto, Masayuki. "Hydrogen Burning and Dredge-Up During the Major Core Helium Flash in a Z = 0 Model Star." 1990 March 1
  - d. Iben Jr, Icko. "On the Consequences of Low-Mass White Dwarf Mergers." 1990 April 10
  - e. Iben Jr, Icko. "Helium Star Cataclysmics, a Theoretical Construct." 1990
  - f. Iben Jr, Icko. "The Story of AGB Star Evolution – an Intimate Connection between Theory and Observation." 1990
  - g. Iben Jr, Icko. "Constraints on Solar Models from Stellar Evolution." 1990
  - h. Iben Jr, Icko. "White Dwarf Mass and Composition as Functions of the Mass of Single and Binary Precursors." 1990
- 2. 1991
  - a. Eggen, Olin J. & Iben Jr, Icko. "First Giant Branch and Asymptomatic Giant Branch Stars in Nearby Aggregates." April 1991
  - b. Iben Jr, Icko & Tutukov, Alexander V. "Helium Star Cataclysmics." 1991 April 1
  - c. Iben Jr, Icko. "Single and Binary Star Evolution." 1991 May
  - d. Fujimoto, Masayuki Y. & Iben Jr, Icko. "Shell Helium Burning in Low-Mass Stars 1. Models in Thermal Equilibrium." 1992 June 20
  - e. Iben Jr, Icko; Fujimoto, Masayuki Y; & MacDonald, Jim. "Diffusion and Mixing in Classical Nova Precursors." 1991 July 1
  - f. Iben Jr, Icko. "Asymptomatic Giant Branc Stars: Thermal Pulses, Carbon Production, and Dredge Up; Neutron Sources and s-Process Nucleosynthesis." 1991
  - g. Iben Jr, Icko & Tutukov, Alexander V. "Close Binaries with Evolved Components." 1991
  - h. Iben Jr, Icko. "Single and Binary Star Evolution." 1991
- 3. 1992
  - a. Iben Jr, Icko; Fujimoto, Masayuki Y; MacDonald, Jim. "On Mass-Transfer Rates in Classical Nova Precursors." 1992 January 10
  - b. Tutukov, Alexander V; Yungelson, Lev R; & Iben Jr, Iken. "The Frequencies of Supernovae in Binaries." 1992 February 10

**Box List:** Icko Iben, Jr. Papers, 1950-2006  
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**Box 54**

- c. Iben Jr, Icko; Fujimoto, Masayuki Y; & MacDonald, Jay. "Diffusion and Making in Accreting White Dwarfs." 1992 April 1
  - d. Iben Jr, Icko & Tutukov, Alexander V. "Rare Thermonuclear Explosions in Short-Period Cataclysmic Variables, with Possible Application to the Nova-Like Red Variable in the Galaxy M31." 1992 April 10
  - e. Kato, Mariko & Iben Jr, Icko. "Self-Consistent Models of Wolf-Rayet Stars as Helium Stars with Optically Thick Winds." 1992 July 20
  - f. Kato, Mariko & Iben Jr, Icko. "Light-Curve Analysis of Classical Novae." 1992 August 1
  - g. Iben Jr, Icko. "The Evolution of Planetary Nebulae, Their Precursors and Their Progeny—a Commentary." September 8, 1992
  - h. Weidemann, Volker; Jordan, Stefan; Iben Jr, Icko; & Casertano, Stefano. "White Dwarfs in the Halo of the Hyades Cluster: The Case of the Missing White Dwarfs." 1992 November
  - i. Fujimoto, Masayuki & Iben Jr, Icko. "Constraints on Element Mixing in Classical Novae." 1992 November 10
  - j. Hollowell, David & Iben Jr, Icko. "Nucleosynthesis and Mixing in Low- and Intermediate-Mass AGB Stars." 1988
  - k. Iben Jr, Icko. "The Evolution of Cataclysmic Variables and the Enhancement of Heavy Elements in the Classical Novae." 1992
4. 1993
- e. Icko Jr, Iben & Livio, Mario. "A Model for the Dramatic Decline of FG Sagittae." 1993 March 20
  - f. Casertano, Stefano; Iben Jr, Icko; & Shiels, Aaron. "The Hyades Cluster-Supercluster Connection: Evidence for a Local Concentration of Dark Matter." 1993 June 10
  - g. Iben Jr, Icko. "On Why Intermediate-Mass Stars Become Giants after the Exhaustion of Hydrogen in their Cores." 1993 October 1
  - h. Iben Jr, Icko & Tutukov, Alexander V. "Formation and Evolution of Binary Planetary Nebula Nuclei and Related Objects." 1993 November 20
  - i. Iben Jr, Icko & Livio, Mario. "Common Envelopes in Binary Star Evolution." 1993 December
  - j. Iben Jr, Icko. "The Evolution of Planetary Nebulae, Their Precursors and their Progeny – a Commentary." 1993
5. 1994
- a. Iben Jr, Icko & Tutukov, A.V. "Helium-Accreting Degenerate Dwarfs as Presupernovae and Scenarios for the Ultrasoft X-ray Sources." 1994 August 10
  - b. García-Berro, Enrique & Iben Jr, Icko. "On the Formation and Evolution of Super-Asymptotic Giant Branch Stars with Cores Processed by Carbon Burning. I. Spica to Antares." 1994 October 10
6. 1995
- a. Iben Jr, Icko. "Planetary Nebulae and their Central Stars – Origin and Evolution." *Physics Reports*. January 1995
  - b. Fujimoto, Masayuki Y; Sugiyama, Kiyoshi; Iben Jr, Icko; & Hollowell, David. "On Population III Stars as Gravitational Microlensing Objects in the Galactic Halo." 1995 May 1

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**Box 54**

- c. Iben Jr, Icko; Tutukov, Alexander V; & Yungelson, Lev R. "A Model of the Galactic X-Ray Binary Population. I. High-Mass X-ray Binaries." 1995 September
  - d. Iben Jr, Icko; Tutukov, Alexander V; & Yungelson, Lev R. "A Model of the Galactic X-ray Binary Population. II. Low-Mass X-ray Binaries in the Galactic Disk." 1995 September
  - e. Iben Jr, Icko & Tutukov, Alexander V. "Mixing Before and During Outburst in Classical and Symbiotic Novae." 1995
  - f. Iben Jr, Icko & Macdonald, Jim. "The Born Again AGB Phenomenon." 1995
7. 1996
- a. Iben Jr, Icko & Tutukov, Alexander V. "On the Origin of the High Space Velocities of Radio Pulsars." 1996 January 10
  - b. Iben Jr, Icko; Tutukov, Alexander V; & Yungelson, Lev R. "On the Origin of Hydrogen-Deficient Supergiants and their Relation to R Coronae Borealis Stars and Non-da White Dwarfs." 1996 January 10
  - c. Ritossa, Claudio; García-Berro, Enrique; & Iben Jr, Icko. "On the Evolution of Stars that Form Electron-Degenerate Cores Processed by Carbon Burning. II. Isotope Abundances and Thermal Pulses in a  $10 M_{\odot}$  Model with An  $ON_e$  Core and Applications to Long-Period Variables, Classical Novae, and Accretion-Induced Collapse." 1996 March 20
  - d. Iben Jr, Icko & Tutukov, A.V. "On the Evolution of Symbiotic Stars and Other Binaries with Accreting Degenerate Dwarfs." 1996 July
  - e. Ritossa, Claudio; García-Berro, Enrique; & Iben Jr, Icko. "On the Evolution of Super-AGB Stars with  $ON_e$  Degenerate Cores: The Case of a  $10 M_{\odot}$  Model." 1996
  - f. Fujimoto, Masayuki Y & Iben Jr, Icko. "On the Evolution of Accreting White Dwarfs with Rotation-Induced Mixing." 1996
8. 1997
- a. Iben Jr, Icko; Tutukov, Alexander V; & Yungelson, Lev R. "Helium and Carbon-Oxygen White Dwarfs in Close Binaries." 1997 January 20
  - b. Ritossa, Claudio; García-Berro, Enrique; & Iben Jr, Icko. "On the Evolution of Stars that Form Electron-Degenerate Cores Processed by Carbon Burning. III. The Inward Propagation of a Carbon-Burning Flame and other Properties of a  $9 M_{\odot}$  Star." 1997 August 20
  - c. Iben Jr, Icko; Tutukov, Alexander V; Fedorova, Alexandra V. "On the Evolution of Low-Mass X-ray Binaries under the Influence of a Donor Stellar Wind Induced by X-Rays from the Accretor." 1997 September 10
  - d. Wallerstein, George; Iben Jr, Icko; et al. "Synthesis of the Elements in Stars: Forty Years of Progress." October 1997
  - e. Iben Jr, Icko; Ritossa, Claudio; & García-Berro, Enrique. "On the Evolution of Stars that Form Electron-Degenerate Cores Processed by Carbon Burning. IV. Outward Mixing During the Second Dredge-up Phase and other Properties of a  $10.5 M_{\odot}$  Model Star." 1997 November 10
  - f. Iben Jr, Icko & Tutukov, Alexander V. "On Space Velocities of Binary Stars in Which One Component Has Experienced a Supernova Explosion." 1997 December 10
  - g. Iben Jr, Icko & Tutukov, Alexander V. "The Lives of Stars: From Birth to Death and Beyond (Part 1)." *Sky & Telescope*. December 1997

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- h. Iben Jr, Icko. "Scenarios for Type IA Supernovae." 1997
- 9. 1998
  - a. Iben Jr, Icko & Tutukov, Alexander V. "The Lives of Binary Stars: From Birth to Death and Beyond (Part 2)." *Sky & Telescope*. January 1998
  - b. Iben Jr, Icko & Tutukov, Alexander V. "Comment of 'Intrinsic Kicks at Birth are Required to Explain the Observed Properties of Single and Binary Neutron Stars'." 1998 July 1
  - c. Iben Jr, Icko; Tutukov, Alexander V; & Fedorova, Alexandra V. "On the Luminosity of White Dwarfs in Close Binaries under the Influence of Gravitational Wave Radiation." 1998 August 10

**Box 55**

- 1. 1999
  - a. Iben Jr, Icko & Tutukov, Alexander V. "On the Evolution of Close Triple Stars that Produce Type Ia Supernovae." 1999 January 20
  - b. Ritossa, Claudio; García-Berro, Enrique; & Iben Jr, Icko. "On the Evolution of Stars that Form Electron-Degenerate Cores Processed By Carbon Burning. V. Shell Convection Sustained by Helium Burning, Transient Neon Burning, Dredge-Out, Urca Cooling, and other Properties of an  $11 M_{\odot}$  population I Model Star." 1999 April 10
  - c. Piersanti, L; Cassisi, S; Iben Jr, I; & Tornambè, A. "On the Very Long Term Evolutionary Behavior of Hydrogen-Accreting Low-Mass CO White Dwarfs." 1999 August 10
  - d. Fujimoto, Masayuki Y & Aikawa, Masayuki. "The Evolution of Metal-Deficient Stars and the Search for Population III Stars." 1999
  - e. Iben Jr, Icko. "AGB Theory – A Retrospective." 1999
- 2. 2000
  - a. Fujimoto, Masayuki Y; Ikeda, Yasufumi; & Iben Jr, Icko. "The Origin of Extremely Metal-Poor Carbon Stars and the Search for Population III." 2000 January 20
  - b. Piersanti, Luciano; Cassisi, Santi; Iben Jr, Icko; & Tornambè, Amedeo. "Hydrogen-Accreting Carbon-Oxygen White Dwarfs of Low Mass: Thermal and Chemical Behavior of Burning Shells." 2000 June 1
  - c. Iben Jr, Icko. "On the Normalization of Cepheid Period-Luminosity Relationships." 2000
  - d. Iben Jr, Icko. "Mass Transfer/Loss from AGB Stars in Close Binaries." 2000
- 3. 2001-2003
  - a. Iben Jr, Icko. "Lessons from and About Symbiotic Novae." 2003
- 4. Suda et al paper April 2004
- 5. Chapter for "Classical Novae" Nye Evans & Mike?, 2007
- 6. Vita and publication list
- 7. Sky & telescope

**Series 2 & Series 5 – OVERSIZED**

**Box 56**

1. Renzini correspondence and draft, 1981
2. Erice: An Essay on SNI Precursors, 1984

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