List of Publications

Vassiliki Kalogera

Before 1998:


3. • A Strongly Magnetic Neutron Star in a Face-On Binary System

4. • The Maximum Mass of a Neutron Star

5. • Orbital Characteristics of Binary Systems after Asymmetric Supernova Explosions

6. A New Mechanism for the Formation of LMXBs: Direct Supernova

7. • Double Neutron Star Systems and Natal Neutron Star Kicks


In 1998:


10. • Formation of Low-Mass X-Ray Binaries. III. A New Formation Mechanism: Direct Supernova

11. • Supernova Kicks, Magnetic Braking, and Neutron-Star Binaries

1• Publications in Refereed Journals


In 1999:


15. Coalescence Rates of Double Neutron Stars  

16. ● Formation of the Observed Double Neutron Star Systems  

In 2000:

17. ● Bounds on Neutron-Star Moments of Inertia and the Evidence for General Relativistic Frame Dragging  

18. Close Binaries with Two Compact Objects  

19. Compact Binary Mergers and Accretion-Induced Collapse: Event Rates  

20. ● Constraints on Supernova Kicks from the Double Neutron Star System PSR B1913+16  

21. ● An Upper Limit on the Coalescence Rate of Double Neutron-Star Binaries in the Galaxy  

22. ● Spin-Orbit Misalignment in Close Binaries with Two Compact Objects,  

23. Chandra Observations of M33: A First Look  
In 2001:

24. Coalescence Rates of Compact Objects

25. Asymmetric Supernova Explosion Investigated by Geodetic Precession

26. Formation of Black-Hole X-Ray Binaries with Low-Mass Donors

27. Formation of Black-Hole X-Ray Transients

28. • A New Formation Channel for Double Neutron Stars Without Recycling: Implications for Gravitational Wave Detection

29. • Theoretical Black Hole Mass Distributions

30. • The Coalescence Rate of Double Neutron Star Systems

31. Event Rates for Binary Inspiral

32. Binary Population Synthesis: Methods, Normalization, and Surprises
In 2002:

33. Coalescence of Double Compact Objects: Event Rates

34. • Merger Sites of Double Neutron Stars and Their Host Galaxies

35. • A Comprehensive Study of Binary Compact Objects as Gravitational Wave Sources: Evolutionary Channels, Rates, and Physical Properties

In 2003:

36. A New Method for Estimates of Binary Pulsar Coalescence Rates

37. Influence of Precession on the Search of Inspiral Binaries with Ground-Based Gravitational-Wave Detectors

38. The Distribution of Mass Ratios in Compact Object Binaries
   Bulik, T., Belczynski, K., & Kalogera, V. 2003, in Astronomical Telescopes and Instrumentation: Astronomy Outside the EM Spectrum, p. 146–155

39. • Searching for Gravitational Waves from the Inspiral of Precessing Binary Systems: Problems with Current Waveforms

40. The Probability Distribution of the Double Neutron Star Coalescence Rate and Predictions for More Detections

41. • The Probability Distribution of Binary Pulsar Coalescence Rates. I. Double Neutron Star Systems in the Galactic Field

42. • Searching for Gravitational Waves from the Inspiral of Precessing Binary Systems: New Hierarchical Scheme using “Spiky” Templates

43. • Helium-Core White Dwarfs in Globular Clusters
44. • The Role of Helium Stars in the Formation of Double Neutron Stars

45. The Probability Distribution of Binary Pulsar Coalescence Rates

46. • An Increased Estimate of the Merger Rate of Double Neutron Stars from Observations of a Highly Relativistic System

47. First Results from a Chandra Survey of the 'Bar' Region of the SMC

In 2004:

48. • X-Ray Binary Populations: The Luminosity Function of NGC 1569

49. • Could Black Hole X-ray Binaries be Detected in Globular Clusters?

50. • The Cosmic Coalescence Rate for Double Neutron Star Binaries

51. • An Observational Diagnostic for Ultraluminous X-Ray Sources

52. • Constraints on the Formation of PSR J0737-3039: The Most Probable Isotropic Kick Magnitude

53. • Searching for Gravitational Waves from the Inspiral of Precessing Binary Systems: Astrophysical Expectations and Detection Efficiency of “Spiky” Templates

54. A Chandra survey of the 'Bar' region of the SMC
55. • Gravitational Waves from Extragalactic Inspiraling Binaries: Selection Effects and Expected Detection Rates

56. • Pulsar Kicks and Spin Tilts in the Close Double Neutron Stars PSR J0737-3039, PSR B1534+12 and PSR B1913+16

57. • The Probability Distribution of Binary Pulsar Coalescence Rates. II. Neutron Star – White Dwarf Binaries

In 2005:

58. • Mapping Inspiral Rates on Population Synthesis Parameters

59. • Are Supernova Kicks Responsible for X-ray Binary Ejection from Young Clusters?

60. • Binary Compact Object Inspiral: Detection Expectations

61. The Galactic Double-Neutron-Star Merger Rate: Most Current Estimates

62. The Formation of the Most Relativistic Pulsar PSR J0737-3039

63. The Galactic Formation Rate of Eccentric Neutron Star – White Dwarf Binaries

64. • Understanding Compact Object Formation and Natal Kicks I. Calculation Methods and the Case of GRO J1655-40

65. Binary Compact Object Inspiral: Rate Expectations
66. • Bounds on Expected Black Hole Spins in Inspiraling Binaries

67. • Constraining Population Synthesis Models via the Binary Neutron Star Population


69. The Double-Neutron-Star Inspirial Rate and Expectations for Gravitational-Wave Detection

In 2006:

70. • The Brightest Point X-Ray Sources in Elliptical Galaxies and the Mass Spectrum of Accreting Black Holes

71. Point X-Ray Sources in Elliptical Galaxies

72. • Close Binary Interactions of Intermediate-Mass Black Holes: Possible Ultra-Luminous X-Ray Sources?

73. X-Ray Binaries in Nearby Galaxies

74. • Formation and Progenitor of PSRJ0737-3039: New Constraints on the Supernova Explosion Forming Pulsar B

75. • Stellar Remnants in Galactic Nuclei: Mass Segregation

76. • A Study of Compact Object Mergers as Short Gamma-Ray Burst Progenitors
77. • The Modulated Emission of the Ultraluminous X-Ray Source in NGC 3379  

78. • Eccentricities of Double Neutron Star Binaries  

79. • Probing the Low-Luminosity X-Ray Luminosity Function in Normal Elliptical Galaxies  

80. Models of Mass Segregation at the Galactic Centre  

81. • Equipotential Surfaces and Lagrangian points in Non-synchronous, Eccentric Binary and Planetary Systems  

In 2007:

82. Formation of Double Compact Objects  

83. • On the Rarity of Double Black Hole Binaries: Consequences for Gravitational-Wave Detection  

84. • Eccentric Double White Dwarfs as LISA Sources in Globular Clusters  

85. X-Ray Binary Populations in Young Stellar Regions  

86. Effect of PSR J0737-3039 on the DNS Merger Rate and Implications for GW Detection  

87. • Compact Object Modeling with the StarTrack Population Synthesis Code  
88. • Interacting Binaries with Eccentric Orbits: Secular Orbital Evolution due to Conservative Mass Transfer

89. • Mapping Population Synthesis Event Rates on Model Parameters II: Convergence and Accuracy of Multidimensional Fits

90. • Constraining Population Synthesis Models via Observations of Compact-Object Binaries and Supernovae

91. • Host Galaxies Catalog Used in LIGO Searches for Compact Binary Coalescence Events

92. • Short Gamma-Ray Bursts and Binary Mergers in Spiral and Elliptical Galaxies: Redshift Distribution and Hosts

93. • Probing White Dwarf Interiors with LISA: Periastron Precession in Eccentric Double White Dwarfs

Publications with the LIGO Scientific Collaboration (LSC):

94. • Detector Description and Performance for the First Coincidence Observations between LIGO and GEO

95. • Setting Upper Limits on the Strength of Periodic Gravitational Waves Using the First Science Data from the GEO600 and LIGO Detectors

96. • First Upper Limits from LIGO on Gravitational Wave Bursts

97. • Analysis of LIGO Data for Gravitational Waves from Binary Neutron Stars

98. • Upper limits on the Strength of Periodic Gravitational Waves from PSR J1939+2134

99. • Analysis of First LIGO Science Data for Stochastic Gravitational Waves
100. • Limits on Gravitational Wave Emission from Selected Pulsars using LIGO Data

101. • A Search for Gravitational Waves Associated with the Gamma Ray Burst GRB030329
     Using the LIGO Detectors

102. • Upper Limits on Gravitational Wave Bursts in LIGOs Second Science Run

103. • Search for Gravitational Waves from Galactic and Extra–Galactic Binary Neutron Stars

104. • Search for Gravitational Waves from Primordial Black Hole Binary Coalescences in the Galactic Halo

105. • Upper Limits from the LIGO and TAMA Detectors on the Rate of Gravitational-Wave Bursts

106. • First All-Sky Upper Limits from LIGO on the Strength of Periodic Gravitational Waves
     Using the Hough Transform

107. • Upper Limits on a Stochastic Background of Gravitational Waves

108. • Search for Gravitational Waves from Binary Black Hole Inspirals in LIGO data

109. • Search for Gravitational-Wave Bursts in LIGO’s Third Science Run

110. • Joint LIGO and TAMA300 Search for Gravitational Waves from Inspiralling Neutron Star Binaries

111. • First Cross-Correlation Analysis of Interferometric and Resonant-Bar Gravitational-Wave Data for Stochastic Backgrounds

112. • Searching for a Stochastic Background of Gravitational Waves with the Laser Interferometer Gravitational-Wave Observatory

113. • Upper Limits on Gravitational Wave Emission from 78 Radio Pulsars

114. • Upper Limit Map of a Background of Gravitational Waves
115. • Search for Gravitational Waves from Binary Inspirals in S3 and S4 LIGO Data