

# Nissim Kanekar

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## 1 Biographical details :

- Date of Birth : 11<sup>th</sup> September, 1973
- Nationality : Indian
- Institute : National Centre for Radio Astrophysics, TIFR, Pune – 411007, India
- Phone : +91 – 20 – 2571 9246
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## 2 Career history:

- DST Swarnajayanti Fellowship: 2015 – present, National Centre for Radio Astrophysics, India
- Associate Professor: 2012 – present, National Centre for Radio Astrophysics, India
- DST Ramanujan Fellowship: 2009 – 2014, National Centre for Radio Astrophysics, India
- Reader: 2009 – 2012, National Centre for Radio Astrophysics, India
- Max Planck Fellowship : 2007 – 2009, National Radio Astronomy Observatory, USA.
- Jansky Fellowship : 2004 – 2008, National Radio Astronomy Observatory, USA.
- NOVA Fellowship : 2002 – 2004, Kapteyn Institute, University of Groningen, The Netherlands (NL)
- Visiting Fellowship : 2000 – 2001, National Centre for Radio Astrophysics, India

## 3 Formal education :

- Ph.D. (Physics) : October 2000, University of Pune. Research carried out at NCRA-TIFR, Pune
- M. Sc. (Physics) : 1995, University of Pune, India
- B. Sc. (Physics) : 1993, University of Bombay, India

## 4 Fellowships and Awards :

- Hari Om Prerit Vikram Sarabhai Award of the Physical Research Laboratory: 2015 (shared with Dibyendu Chakraborty)
- DST Swarnajayanti Fellowship: 2015 – present, National Centre for Radio Astrophysics, India
- The Delta Lecturership Award: 2014, awarded by the National Central University, Taiwan
- DST Ramanujan Fellowship: 2009 – 2014, National Centre for Radio Astrophysics, India
- Vainu Bappu Gold Medal of the Astronomical Society of India: 2008 (shared with Niayesh Afshordi)
- Max Planck Fellowship : 2007 – 2009, National Radio Astronomy Observatory, USA.
- Distinguished Visitor : 12/2005 – 01/2006, Australia Telescope National Facility, Australia.
- ESO Visiting Fellowship : 9/2005 – 10/2005, European Southern Observatory, Chile.
- URSI Young Scientist Award : 2005, declined.
- Jansky Fellowship : 2004 – 2008, National Radio Astronomy Observatory, USA.
- Bolton Fellowship (ATNF, Australia) : 2004 – 2007, declined.
- ASTRON Fellowship (ASTRON, The Netherlands) : 2004 – 2007, declined.
- Bolton Fellowship (ATNF, Australia) : 2003 – 2006, declined.
- NOVA Fellowship : 2002 – 2004, Kapteyn Institute, University of Groningen, The Netherlands

## 5 Professional activities:

- Referee for the journals Physical Review Letters, Monthly Notices of the Royal Astronomical Society, Physical Review D, Astrophysical Journal, Astronomy & Astrophysics, Astrophysics & Space Science, and Journal of Astronomy and Astrophysics.
- Referee for funding proposals to the US National Science Foundation, the European Research Council, and the Australian Research Council, and for observing proposals to the Giant Metrewave Radio Telescope, the Meerkat Telescope and the Shanghai-Tianma Telescope.

## 6 Conference talks (selected):

1. “Science at Low Frequencies – III”, Pasadena, USA, 2016 (invited)
2. “Galaxies on Top of Quasars”, Pittsburgh, USA, 2016

3. “SKA in Seoul”, Seoul, South Korea, 2015
4. “The Metre Wavelength Sky”, Pune, India, 2013 (invited)
5. “Phases of the ISM”, Heidelberg, Germany, 2013
6. “Varying Fundamental Constants and Dynamical Dark Energy”, Sesto, Italy, 2013 (invited)
7. “The Modern Radio Universe – 2013”, Bonn, Germany, 2013 (invited)
8. “Indian Conference on Galaxy Formation and Cosmology”, Mohali, India, 2011 (invited)
9. “International Conference on Interstellar Dust, Molecules and Chemistry”, Pune, India, 2011 (invited)
10. “Galaxies in Absorption”, Boulder, Colorado, USA, 2011 (invited)
11. “A Quarter Century of DLAs”, Ringberg, Germany, 2011 (invited)
12. “A New Golden Age in Radio Astronomy”, Assen, The Netherlands, 2010
13. “The High Redshift Universe: A Multi-Wavelength View”, Aspen, Colorado, USA, 2010
14. “IAU JD 9: Are the Fundamental Constants varying with Time ?”, Rio de Janeiro, Brazil, 2009
15. “The Marcel Grossmann meeting 12”, Paris, France, 2009
16. “The Invisible Universe”, Paris, France, 2009
17. “Advancing Chemical Understanding through Astronomical Observations”, Green Bank, USA, 2009 (invited)
18. “The EVLA Vision: Galaxies Through Cosmic Time”, Socorro, USA, 2008
19. “The Low Frequency Radio Universe”, Pune, India, 2008 (invited)
20. “Galaxy Evolution through the Neutral Hydrogen Window”, Arecibo, USA, 2008
21. “Indian Conference on Galaxy Formation and Cosmology”, Allahabad, India, 2007
22. “Frontiers of Astrophysics : A Celebration of NRAO’s 50th Anniversary”, Virginia, USA, 2007 (invited)
23. “HI Survival through Cosmic Time”, Sienna, Italy, 2007 (invited)
24. “Precision Spectroscopy in Astrophysics – 2006”, Aveiro, Portugal, 2006
25. “New Techniques and Results in Low Frequency Radio Astronomy”, Tasmania, Australia, 2005 (invited)
26. “Probing Galaxies through Quasar Absorption Lines”, IAU Colloquium 199, Shanghai, China, 2005
27. “The Dense Interstellar Medium in Galaxies”, 4th Köln-Bonn-Zermatt Symposium, Zermatt, 2003
28. “The Baryonic Universe”, Aspen Astrophysics Workshop, Aspen, USA, 2003

## 7 Colloquia and other invited talks (selected):

1. Vikram Sarabhai Award Colloquium, Physical Research Laboratory, Ahmedabad, 2017
2. ARIES Colloquium, Aryabhata Research Institute of Observational Sciences, Nainital, 2017
3. Department of Astronomy and Astrophysics Colloquium, TIFR, Mumbai, 2017
4. Max Planck Institut für Radioastronomie Colloquium, Bonn, Germany, 2016
5. KASI Colloquium, Korea Astronomy and Space Science Institute, Daejon, South Korea, 2015
6. Delta Lecturership Colloquium, National Central University, Taiwan, 2015
7. ICRAR Colloquium, University of Western Australia, Australia, 2014
8. ICRAR Colloquium, Curtin University, Australia, 2014
9. Kapteyn Institute Colloquium, Groningen, The Netherlands, 2013
10. Max Planck Institut für Radioastronomie Colloquium, Bonn, Germany, 2013
11. TIFR Physics Colloquium, Tata Institute of Fundamental Research, Mumbai, India, 2012
12. IISc Astronomy Seminar, Indian Institute of Sciences, Bangalore, India, 2012
13. IISc Physics Colloquium, Indian Institute of Sciences, Bangalore, India, 2012
14. ALMA Colloquium, European Southern Observatory, Santiago, Chile, 2012
15. ESO Colloquium, European Southern Observatory, Santiago, Chile, 2012
16. Seminar, European Southern Observatory, Garching, Germany, 2010
17. National Radio Astronomy Observatory colloquium, Green Bank, USA, 2010
18. Seminar, Lawrence Berkeley National Laboratory, Berkeley, USA, 2009
19. Seminar, University of California, Santa Cruz, USA, 2008
20. Seminar, University of Colorado, Boulder, USA, 2008
21. Australia Telescope National Facility Colloquium, Sydney, Australia, 2008
22. Seminar, Institute of Astronomy, University of Cambridge, UK, 2007
23. Department of Astrophysics colloquium, University of Oxford, UK, 2007
24. Arecibo Observatory colloquium, Arecibo, Puerto Rico, 2007
25. Seminar, Caltech, Pasadena, USA, 2007

26. Astrophysics seminar, University of California, San Diego, USA, 2006
27. National Centre for Radio Astrophysics colloquium, Pune, India, 2006
28. ASTRON colloquium, Dwingeloo, the Netherlands, 2006
29. New Mexico Institute of Technology colloquium, Socorro, USA, 2006
30. Australian National University colloquium, Canberra, Australia, 2005
31. European Southern Observatory colloquium, Santiago, Chile, 2005
32. Astrophysics seminar, University of New Mexico, Albuquerque, USA, 2005
33. National Radio Astronomy Observatory colloquium, Socorro, USA, 2005
34. Australia Telescope National Facility colloquium, Sydney, Australia, 2004
35. Kapteyn Institute colloquium, University of Groningen, the Netherlands, 2003
36. Max Planck Institut für Radioastronomie seminar, Bonn, Germany, 2003
37. Max Planck Institut für Radioastronomie colloquium, Bonn, Germany, 2003
38. ASTRON colloquium, Dwingeloo, the Netherlands, 2003
39. National Radio Astronomy Observatory colloquium, Green Bank, USA, 2002
40. University of Melbourne colloquium, Melbourne, Australia, 2000
41. Australia Telescope National Facility colloquium, Sydney, Australia, 2000
42. Max Planck Institut für Astrophysik seminar, Garching, Germany, 1998
43. Seminar, Institute of Astronomy, University of Cambridge, UK, 1998
44. Astrophysics seminar, Imperial College, UK, 1998

## 8 Refereed publications:

1. *CII Emission from Galaxies associated with damped Lyman-alpha systems.*  
M. Neeleman, **N. Kanekar**, J. X. Prochaska, M. Rafelski, C. L. Carilli, A. M. Wolfe 2017, *Science*, 355, 1285
2. *Giant Metrewave Radio Telescope detection of associated HI 21-cm absorption at  $z = 1.2230$  towards TXS1954+513*  
J. N. H. S. Aditya, **N. Kanekar**, J. X. Prochaska, B. Day, P. Lynam, J. Cruz 2017, *MNRAS*, 465, 5011
3. *First Connection between Cold Gas in Emission and Absorption: CO Emission from a Galaxy-Quasar Pair*  
M. Neeleman, J. X. Prochaska, M. A. Zwaan, **N. Kanekar**, L. Christensen, M. Dessauges-Zavadsky, J. P. U. Fynbo, E. van Kampen, P. Moller, T. Zafar 2016, *ApJL*, 820, L39
4. *Invisible Active Galactic Nuclei. II. Radio Morphologies and Five New HI 21cm Absorption Line Detectors*  
T. Yan, J. T. Stocke, J. Darling, E. Momjian, S. Sharma, **N. Kanekar** 2016, *AJ*, 151, 74
5. *A Giant Metrewave Radio Telescope search for associated HI 21cm absorption in high-redshift flat-spectrum sources*  
J. N. H. S. Aditya, **N. Kanekar**, S. Kurapati 2016, *MNRAS*, 455, 4000
6. *The Gas Mass of Star-forming Galaxies at  $z \approx 1.3$*   
**N. Kanekar**, S. Sethi, K. S. Dwarakanath 2016, *ApJL*, 818, L28
7. *The HI Content of the Universe Over the Past 10 Gyrs*  
M. Neeleman, J. X. Prochaska, J. Ribaud, N. Lehner, J. C. Howk, M. Rafelski, **N. Kanekar** 2016, *ApJ*, 818, 113
8. *First measurement of HI 21 cm emission from a GRB host galaxy indicates a post-merger system*  
M. Arabsalmani, S. Roychowdhury, M. A. Zwaan, **N. Kanekar**, M. Michalowski 2015, *MNRAS*, 454, L51
9. *HI 21cm emission from the subdamped Lyman- absorber at  $z = 0.0063$  towards PG 1216+069*  
J. N. Chengalur, T. Ghosh, C. J. Salter, **N. Kanekar**, E. Momjian, B. A. Keeney, J. T. Stocke 2015, *MNRAS*, 353, 3135
10. *A New Constraint on the Molecular Oxygen Abundance at  $z \sim 0.886$*   
**N. Kanekar**, D. S. Meier 2015, *ApJL*, 811, L23
11. *On Detecting Millisecond Pulsars at the Galactic Center*  
J-P. Macquart, **N. Kanekar** 2015, *ApJ*, 805, 172
12. *A search for H $\alpha$  emission in high-metallicity damped Lyman systems at  $z \sim 2.4$*   
W-H. Wang, **N. Kanekar**, J. X. Prochaska 2015, *MNRAS*, 448, 2832
13. *Constraints on changes in the proton-electron mass ratio using methanol lines*  
**N. Kanekar** et al. 2015, *MNRAS*, 448, L104

14. *Directly imaging damped Ly $\alpha$  galaxies at  $z > 2$  – III. The star formation rates of neutral gas reservoirs at  $z \sim 2.7$*   
M. Fumagalli, J. M. O’Meara, J. X. Prochaska, M. Rafelski, **N. Kanekar** 2015, MNRAS, 446, 3178
15. *Giant Metrewave Radio Telescope Detection of Two New HI 21cm Absorbers at  $z \approx 2$*   
**N. Kanekar** 2014, ApJL, 797, L20
16. *Directly imaging damped Ly $\alpha$  galaxies at  $z > 2$  – II. Imaging and spectroscopic observations of 32 quasar fields*  
M. Fumagalli, J. M. O’Meara, J. X. Prochaska, **N. Kanekar**, A. M. Wolfe 2014, MNRAS, 444, 1282
17. *Constraints on the gas mass of low- $z$  damped Lyman  $\alpha$  systems*  
P. Mazumdar, **N. Kanekar**, J. X. Prochaska 2014, MNRAS, 443, L29
18. *The spin temperature of high-redshift damped Lyman  $\alpha$  systems*  
**N. Kanekar** et al. 2014, MNRAS, 438, 2131
19. *A Blind Green Bank Telescope Millimeter-wave Survey for Redshifted Molecular Absorption*  
**N. Kanekar**, A. Gupta, C. L. Carilli, J. T. Stocke, K. W. Willett 2014, ApJ, 782, 56
20. *The temperature of the diffuse HI in the Milky Way - II. Gaussian decomposition of the HI-21 cm absorption spectra*  
N. Roy, **N. Kanekar**, J. N. Chengalur 2013, MNRAS, 436, 2366
21. *The temperature of the diffuse HI in the Milky Way - I. High resolution HI-21 cm absorption studies*  
N. Roy, **N. Kanekar**, R. Braun, J. N. Chengalur 2013, MNRAS, 436, 2352
22. *Accurate measurement of the HI column density from HI 21cm absorption-emission spectroscopy*  
J. N. Chengalur, **N. Kanekar**, N. Roy 2013, MNRAS, 432, 3074
23. *A Search for CII-158  $\mu\text{m}$  Line Emission in HCM6A, a Ly $\alpha$  Emitter at  $z = 6.56$*   
**N. Kanekar**, J. Wagg, R. R. Chary, C. L. Carilli 2013, ApJL, 771, L20
24. *A search for HI 21 cm absorption towards a radio-selected quasar sample - II. A new low spin temperature DLA at high redshift*  
**N. Kanekar**, S. L. Ellison, E. Momjian, B. A. York, M. Pettini 2013, MNRAS, 428, 532
25. *HI content, metallicities and spin temperatures of damped and sub-damped Ly $\alpha$  systems in the redshift desert ( $0.6 < z_{\text{abs}} < 1.7$ )*  
S. L. Ellison, **N. Kanekar**, J. X. Prochaska, E. Momjian, G. Worseck 2012, MNRAS, 424, 293
26. *A Deep Search for CO  $J = 2-1$  Emission from a Ly $\alpha$  Blob at  $z \sim 6.595$*   
J. Wagg, **N. Kanekar** 2012, ApJL, 751, L24
27. *Constraining Fundamental Constant Evolution with HI and OH Lines*  
**N. Kanekar**, G. I. Langston, J. T. Stocke, C. L. Carilli, K. M. Menten 2012, ApJL, 746, L16

28. *An HI Column Density Threshold for Cold Gas Formation in the Galaxy*  
N. Kanekar, R. Braun, N. Roy 2011, ApJL, 737, L33
29. *Constraining Changes in the Proton-Electron Mass Ratio with Inversion and Rotational Lines*  
N. Kanekar 2011, ApJ, 728, L12
30. *A High-Velocity Narrow Absorption Line Outflow in the Quasar J212329.46-005052.9*  
F. W. Hamann, N. Kanekar, J. X. Prochaska et al. 2011, MNRAS, 410, 1957
31. *Directly imaging damped Lyman- $\alpha$  galaxies at  $z > 2$  - I. Methodology and first results*  
M. Fumagalli, J. M. O'Meara, J. X. Prochaska & N. Kanekar 2010, MNRAS, 408, 362
32. *Probing Fundamental Constant Evolution with Redshifted Conjugate-satellite OH Lines*  
N. Kanekar, J. N. Chengalur & T. Ghosh 2010, ApJ, 716, L23
33. *A High-frequency Search for Pulsars within the Central Parsec of Sgr A\**  
J-P. Macquart, N. Kanekar, D. A. Frail & S. M. Ransom 2010, ApJ, 715, 939
34. *Probing Fundamental Constant Evolution with Neutral Atomic Gas Lines*  
N. Kanekar, J. X. Prochaska, S. L. Ellison & J. N. Chengalur 2010, ApJ, 712, L148
35. *The Molecular Gas Content of  $z > 6.5$  Lyman- $\alpha$  Emitters*  
J. Wagg, N. Kanekar & C. L. Carilli 2009, ApJ, 697, L33
36. *A Metallicity-Spin Temperature Relation in Damped Ly- $\alpha$  Systems*  
N. Kanekar, A. Smette, F. H. Briggs & J. N. Chengalur 2009, 705, L40
37. *The covering factor of high-redshift damped Lyman- $\alpha$  systems*  
N. Kanekar, W. M. Lane, E. Momjian, F. H. Briggs & J. N. Chengalur 2009, MNRAS, 394, L61
38. *A search for HI 21cm absorption in strong MgII absorbers in the redshift desert*  
N. Kanekar, J. X. Prochaska, S. L. Ellison & J. N. Chengalur 2009, MNRAS, 396, 385
39. *A search for damped Lyman- $\alpha$  systems towards radio-loud quasars I: the optical survey*  
S. L. Ellison, B. A. York, M. Pettini & N. Kanekar 2008, MNRAS, 388, 1349
40. *Outflowing atomic and molecular gas at  $z \sim 0.67$  towards 1504+377*  
N. Kanekar & J. N. Chengalur 2008, MNRAS, 384, L6
41. *Discovery of 21-cm absorption in a  $z_{abs} = 2.289$  damped Lyman- $\alpha$  system towards TXS 0311+430: the first low spin temperature absorber at  $z > 1$*   
B. A. York, N. Kanekar, S. L. Ellison, M. Pettini 2007, MNRAS, 382, L53
42. *HI 21 cm absorption at  $z \sim 3.39$  towards PKS 0201+113*  
N. Kanekar, J. N. Chengalur & W. M. Lane 2007, MNRAS, 375, 1528



43. *HI 21 cm absorption at  $z \sim 2.347$  towards PKS B0438–436*  
**N. Kanekar**, R. Subrahmanyam, S. L. Ellison, W. M. Lane & J. N. Chengalur 2006, MNRAS, 370, L46
44. *Constraints on changes in fundamental constants from a cosmologically distant OH absorber/emitter*  
**N. Kanekar** et al. 2005, Phys. Rev. Lett., 95, 261301
45. *Tiny HI Clouds in the local ISM*  
R. Braun & **N. Kanekar** 2005, A&A, 436, L53
46. *The strange case of a sub-DLA with very little HI*  
**N. Kanekar** & J. N. Chengalur 2005, A&A, 429, L51
47. *Conjugate 18cm OH Satellite Lines at a Cosmological Distance*  
**N. Kanekar**, J. N. Chengalur & T. Ghosh 2004, Phys. Rev. Lett., 93, 051302
48. *The use of OH "main" lines to constrain the variation of fundamental constants*  
**N. Kanekar** & J. N. Chengalur 2004, MNRAS, 350, L17
49. *HI absorption in a gravitational lens at  $z \sim 0.7645$*   
**N. Kanekar** & F. H. Briggs 2003, A&A, 412, L29
50. *Constraining the variation of fundamental constants using 18cm OH lines.*  
J. N. Chengalur & **N. Kanekar** 2003, Phys. Rev. Lett., 91, 241302
51. *The temperature of the WNM in the Milky Way.*  
**N. Kanekar**, R. Subrahmanyam, J. N. Chengalur & V. Safouris 2003, MNRAS, 346, L57
52. *Detection of OH and wide HI absorption towards B0218+357.*  
**N. Kanekar**, J. N. Chengalur, A. G. de Bruyn & D. Narasimha 2003, MNRAS, 345, L7
53. *Widespread acetaldehyde near the galactic center.*  
J. N. Chengalur & **N. Kanekar** 2003, A&A, 403, L43
54. *A deep search for 21cm absorption in high redshift damped Lyman- $\alpha$  systems.*  
**N. Kanekar** & J. N. Chengalur 2003, A&A, 399, 857
55. *HI 21cm imaging of a nearby damped Lyman- $\alpha$  system.*  
J. N. Chengalur & **N. Kanekar** 2002, A&A, 388, 383
56. *A new 21-cm absorber identified with an  $L \sim L_*$  galaxy.*  
**N. Kanekar**, R. Athreya & J. N. Chengalur 2002, A&A, 382, 838
57. *Molecular gas at intermediate redshifts.*  
**N. Kanekar** & J. N. Chengalur 2002, A&A, 381, L73
58. *Detection of a multi-phase ISM at  $z = 0.2212$ .*  
**N. Kanekar**, T. Ghosh & J. N. Chengalur 2001, A&A, 373, 394

59. *Variable 21 cm absorption at  $z = 0.3127$ .*  
**N. Kanekar** & J. N. Chengalur 2001, MNRAS, 325, 631
60. *Recycling the universe using scalar fields.*  
**N. Kanekar**, V. Sahni & Y. Shtanov 2001, Phys. Rev. D, 63, 083520
61. *HI 21 cm absorption in low  $z$  damped Lyman- $\alpha$  systems*  
**N. Kanekar** & J. N. Chengalur 2001, A&A, 369, 42
62. *ATCA search for 21 cm emission from a candidate damped Ly- $\alpha$  absorber at  $z = 0.101$ .*  
**N. Kanekar**, J. N. Chengalur, R. Subrahmanyan & P. Petitjean 2001, A&A, 367, 46
63. *The effects of anti-correlation on gravitational clustering.*  
**N. Kanekar** & T. Padmanabhan 2001, MNRAS, 324, 988
64. *The implications of 21cm observations for damped Lyman- $\alpha$  systems.*  
J. N. Chengalur & **N. Kanekar** 2000, MNRAS, 318, 303
65. *Gravitational clustering in a  $D$ -dimensional Universe.*  
T. Padmanabhan & **N. Kanekar** 2000, Phys. Rev. D, 61, 023515
66. *Non-linear density evolution from an improved spherical collapse model*  
S. Engineer, **N. Kanekar** & T. Padmanabhan 2000, MNRAS, 314, 279
67. *A critique of scaling behaviour in non-linear structure formation scenarios.*  
**N. Kanekar** 2000, ApJ, 531, 17
68. *GMRT Observations of Low  $z$  Damped Ly $\alpha$  Absorbers*  
J. N. Chengalur & **N. Kanekar** 1999, MNRAS, 302, L29
69. *ORT observations of the damped Lyman- $\alpha$  system towards PKS 0201+113*  
**N. Kanekar** & J. N. Chengalur 1997, MNRAS, 292, 831

## 9 Other publications (selected):

1. *Do the Fundamental Constants change with Time ?*  
**N. Kanekar** 2012, invited review, BASI, Vol. 40, p.21
2. *Probing fundamental constant evolution with redshifted radio lines*  
**N. Kanekar** 2010, in Highlights of Astronomy, Vol. 15, p.323.
3. *New Results on Quasar Outflows*  
F. Hamann, **N. Kanekar**, J. X. Prochaska et al. 2010, in “Co-Evolution of Central Black Holes and Galaxies”, IAU Symposium Proceedings, Vol. 267, p.399

4. *A High-Velocity Narrow Absorption Line Outflow in the Quasar J2123-0050*  
F. Hamann, **N. Kanekar**, J. X. Prochaska et al. 2009, BAAS, Vol. 41, p.831
5. *Absorbing Galaxies*  
**N. Kanekar** 2009, in “The Low-Frequency Radio Universe”, Eds. D. J. Saikia et al., ASP Conference Series, Vol. 407, p.57
6. *Probing fundamental constant evolution with radio spectroscopy*  
**N. Kanekar** 2009, in Memorie della Societa Astronomica Italiana, Vol.80, p.895
7. *Probing Galaxy Evolution with HI 21cm Absorption Spectroscopy*  
**N. Kanekar** et al. 2009, Astro2010: The Astronomy and Astrophysics Decadal Survey, Science White Papers, no. 149
8. *Probing Fundamental Constant Evolution with Astronomical Spectroscopy*  
**N. Kanekar** 2009, Astro2010: The Astronomy and Astrophysics Decadal Survey, Science White Papers, no. 148
9. *Do the Fundamental Constants Change with Time?*  
**N. Kanekar** 2008, invited review, Mod. Phys. Lett. A, 23, 2711
10. *Probing fundamental constant evolution with radio spectroscopy*  
**N. Kanekar** 2008, in “Frontiers of Astrophysics: A Celebration of NRAO’s 50th Anniversary”, Eds. A. H. Bridle et al., ASP Conference Series, Vol. 395, p.297
11. *HI 21cm Absorption Studies: Prospects*  
**N. Kanekar** 2008, in “The Evolution of Galaxies through the Neutral Hydrogen Window”, AIP Conf. Proc., Vol. 1035, p.57
12. *Probing Fundamental Constant Evolution with Redshifted OH Lines*  
**N. Kanekar**, J. N. Chengalur & T. Ghosh 2007, in “Precision Spectroscopy in Astrophysics”, Eds. N. C. Santos et al., p.109
13. *HI 21cm absorption studies of damped Lyman-alpha systems*  
**N. Kanekar** 2007, in “HI Survival Through Cosmic Times”, conference proceedings, p.27
14. *HI 21cm absorption studies of damped Lyman-alpha systems*  
**N. Kanekar** & J. N. Chengalur 2005, in “Probing Galaxies through Quasar Absorption Lines”, Proc. of IAU Colloquium 199, Eds. P. R. Williams et al., p.156
15. *Spin Temperature in High redshift DLAs*  
J. N. Chengalur & **N. Kanekar** 2005, in Highlights of Astronomy, PASP Conf. Ser. Vol. 13, p.581
16. *Tiny HI clouds in the local ISM*  
R. Braun & **N. Kanekar** 2005, in “The Initial Mass Function 50 years later”, Eds. E. Corbelli and F. Pallo, Astrophysics and Space Science Library Vol. 327, p.303

17. *21cm Absorption Studies with the Square Kilometer Array*  
N. Kanekar & F. H. Briggs 2004, invited review for the SKA Science Book, New Astronomy Reviews, 48, 1259
18. *Measuring Changes in the Fundamental Constants with Redshifted Radio Absorption Lines*  
S. J. Curran, N. Kanekar & J. Darling 2004, invited review for the SKA Science Book, New Astronomy Reviews, 48, 1095
19. *HI at High Redshift*  
N. Kanekar & J. N. Chengalur 2004, in “The Dense Interstellar Medium in Galaxies”, Proceedings of the 4th Cologne-Bonn-Zermatt Symposium, Eds. S.Pfalzner et al., Springer proceedings in physics, Vol. 91. p.11
20. *Spin Temperatures in High redshift DLAs*  
J. N. Chengalur & N. Kanekar 2003, in “Elemental Abundances in Old Stars and Damped Lyman- $\alpha$  Systems, 25th meeting of the IAU, Joint Discussion 15, p.15