Curriculum Vitae

Informazioni personali	
Nome Cognome	Valeria Cottini
Qualifica	Ricercatrice
Amministrazione	Agenzia Spaziale Italiana, Roma, Italia
Incarico attuale	Capo Ufficio Micro e Nanosatelliti Scientifici; ASI Project Scientist
Numero Telefonico dell'ufficio	06 8567917
Fax dell'ufficio	
E-mail istituzionale	valeria.cottini@asi.it
Titoli di studio e professionali ed esperienze lavorative	
Titolo di studio	Dottorato in Astronomia (PhD in Astronomy), Università di Roma Tor Vergata, Italia, 27 Feb. 2009.
Altri titoli di studio e professionali	Laurea in Fisica (MS in Physics), Università di Roma "La Sapienza", Italia, 27 Maggio, 2005.

Esperienze professionali (incarichi ricoperti)

ELENCO DELL'ESPERIENZE PROFESSIONALI

08/2020 – presente

Ricercatore

Agenzia Spaziale Italiana, Roma, Italia

Ruoli in ASI
Capo Ufficio Sviluppo di Micro e Nano Satelliti Scientifici
ASI Project Scientist per la missione ARIEL
Responsabile di Procedimento SR394559 per le attività istruttorie finalizzate Realizzazione della missione EAGLE di dimostrazione tecnologica e pre-operativa basata sull'utilizzo dello strumento ottico STREEGO.
Responsabile del Payload per la missione Iperdrone.
Componente della Commissione di Valutazione per le Missioni di opportunità dell'ASI (8110/2008 "all'Avviso d propedeutico all'avvio di una procedura negoziata ai sensi di quanto previsto dall'art. 158 e dall' art. 4 del D. L realizzazione della missione EAGLE di dimostrazione tecnologica e pre-operativa basata sull'utilizzo dello stru

07/2018– 07/2020

Associate Research Scientist

Universita' del Maryland, College Park, MD, USA

Collaborazione con il NASA Goddard Space Flight Center (GSFC) per:
Esplorazione del Sistema Solare.
Science Leader/PI for the mission design of "CUVE – CubeSat UV Experiment".
Science Leader/PI for the instrument design of "CUVIS - Compact UV-Vis Imaging Spectrometer".

01/07/2016 – 05/2018

Assistant Research Scientist

Universita' del Maryland, College Park, MD, USA

Collaborazione con il NASA Goddard Space Flight Center (GSFC) per:

- studio dell'atmosfera e della superficie di Titano utilizzando le osservazioni acquisite dal Composite InfraRed Spectrometer (CIRS) a bordo della missione spaziale Cassini al sistema di Saturno;
- calibrazione e archiviazione dei dati dello strumento Infrared Radiometer Interferometer Spectrometer (IRIS) a bordo della missione Voyager al Sistema Solare esterno.

Esplorazione del Sistema Solare.

04/05/2013 - 01/07/2016

Visiting Assistant Research Scientist

Universita' del Maryland College Park, MD, USA

Collaborazione con il NASA GSFC per:

- Studio di caratteristiche e composizione dell'atmosfera di Titano e sue variazioni tramite l'analisi del suo spettro infrarosso osservato dallo *spettrometro CIRS a bordo della missione Cassini*
  In particolare:
- Analisi dell'abbondanza del C_4N_2 gas
- Studio dei composti alcani nell'atmosfera di Titano (metano etano, propano) e loro variazioni temporali e latitudinali
- Studio di variazioni temporali e longitudinali dei gas principali nell'atmosfera di Titano al Polo Sud, durante l'approssimarsi della stagione invernale
- Pianificazioni delle osservazioni di CIRS

Esplorazione del Sistema Solare.

04/05/2011 - 03/05/2013

NASA postdoctoral fellowship

NASA GSFC, Greenbelt, MD, USA

• Studio del vapor d'acqua nella stratosfera di Titano tramite analisi delle righe di emissione dell'acqua osservate nel lontano infrarosso da Cassini CIRS a bordo della missione Cassini per l'esplorazione del sistema di Saturno. Ho rilevato l'abbondanza e determinato il profilo verticale del vapor d'acqua tramite la costruzione di modelli dell'atmosfera di Titano (tramite lo studio del trasporto radiativo nell'atmosfera) e il loro confront sia con le osservazioni di CIRS del disco di Titano che del suo limbo.
Supervisore: Donald Jennings.

Esplorazione del Sistema Solare.

Research Associate

04/05/2009 - 03/05/2011	Universita' del Maryland, College Park, MD, USA (se rilevante, indirizzo completo e indirizzo sito web ▪ Analisi delle variazioni spaziali (in latitudine) e temporali (variazioni diurne e stagionali) della • a temperatura alla superficie di Titano tramite lo studio del suo spettro infrarosso nella finestra 12U di emissione attorno a 500 cm^{-1} osservata dallo *spettrometro CIRS a bordo della mission Cassini* ▪ Global survey delle osservazioni del pianeta e rappresentazione dei dati ▪ Costruzione di un archivio di mappe della temperature della superficie di Titano ▪ Pianificazioni delle osservazioni di CIRS Esplorazione del Sistema Solare.
03/10/2007 - 03/05/2009	Assegno di ricerca a seguito di una selezione pubblica per titoli e colloquio IASF - INAF, Roma, Italia ▪ Sviluppo di software e codici di retrieval per *analisi dei dati calibrati del Visible and Infrared Thermal Imaging Spectrometer (VIRTIS), strumento a bordo della mission Venus Express a Venere* ▪ Spettroscopia infrarossa e calcoli di trasporto radiativo per modellare l'atmosfera di Venere ▪ Applicazione di metodi inverse per la valutazione degli errori nelle procedure di retrieval ▪ Validazione di codici di trasporto radiativo ed altri strumenti di calcolo su dataset che simulano le condizioni atmosferiche di Venere ▪ Analisi dell'abbondanza e variazioni spaziali e temporali del vapour d'acqua nell'atmosfera di Venere utilizzando gli spettri ad alta risoluzione VIRTIS-H Astrofisica spaziale.
03/10/2005 - 02/10/2007	Assegno di ricerca a seguito di una selezione pubblica per titoli e colloquio IFSI - INAF, Roma, Italia ▪ Sviluppo di codici di retrieval per *l'analisi dei dati acquisiti dal Planetary Fourier Spectrometer (PFS), strumento a bordo della mission Mars Express a Marte* ▪ Spettroscopia infrarossa e modelli di calcolo di trasporto radiativo per simulare l'atmosfera di Marte ▪ Studio dell'atmosfera Marziana utilizzando i dati di PFS: determinazione e analisi dell'abbondanza di componenti minori come gli isotopi del diossido di carbonio (CO_2) e monossido di carbonio(CO) ▪ Partecipazione al Gruppo di Trasporto Radiativo per lo studio, creazione ed utilizzo di strumenti e metodi per le simulazioni di atmosphere planetarie e calcolo di spettri sintetici ▪ Supervisor: Vittorio Formisano Fisica spaziale.
	ATTIVITÀ PROFESSIONALI • **Science Lead** of the Technology Demostration Option instrument selected for the Discovery mission DAVINCI: **CUVIS – Composite UV-Vis Imaging Spectrometer** • **Co-I** of the **NASA Discovery mission concept** DaVinci+ • **Team leader** for the Internal Research & Development Program (IRAD) project **- Compact Ultraviolet to Visible Imaging Spectrometer for Planetary missions -** for development of a middle to near UV-Vis imaging spectrometer optimized to map Venus and its atmosphere. • **Team member** for the **mission study** *Venus Bridge: A concept for the low-cost exploration of Venus (2017-2018).* • **Science Leader/PI** for the **mission design study** for the mission concept "CUVE – CubeSat UV Experiment" held at the Mission Planning Lab (MPL) of NASA Wallops Flight Center (Oct. 2-13 2017). • **Science Leader/PI** for the **instrument design** for the instrument CUVIS - Compact UV-Vis Imaging Spectrometer - held at the Instrument Design Lab (IDL) of NASA Goddard Space Flight Center (Sept. 25-29, 2017). • **Scientific Team member** for the science requirement for a *Net Energy Flux Radiometer* design for the *HERA Saturn Entry Probe Mission concept* in answer to the call for a Medium-size mission opportunity in **ESA's Science Programme (M5)**, 2017.

Autorizzo il trattamento dei miei dati personali ai sensi del Regolamento (UE) 2016/679 e del D. Lgs. 196/2003 come modificato ed integrato dal D. Lgs. 101/2018.

	• **Scientific Team member** for proposal of the **ESA mission concept ODINUS** for comparative exploration of the ice giant planets Uranus and Neptune with twin spacecraft (2013). • **Associate of NASA ESA ASI** *Cassini Composite InfraRed Spectrometer* (**CIRS**) instrument (2009 – 2018). • **Scientific Team member** of **ESA** *Venus Express Visible and Infrared Thermal Imaging Spectrometer* **VIRTIS** instrument (2007 – 2014). • **Scientific Team Member** of **ESA** *Mars Express Planetary Fourier Spectrometer* (**PFS**) instrument (2004 – 2009). • **Member** of the *International Astronomical Union*. • **Member** of the *American Astronomical Society*. • **Member** of the *Division of Planetary Sciences*.
Capacità linguistiche	**Italiano**: madre lingua **Inglese:** avanzato/fluente **Francese:** Basico/Buono
Capacità nell'uso delle tecnologie	▪ Buona padronanza degli strumenti della suite per ufficio (elaboratore di testi, foglio elettronico, software di presentazione) e di ricerca nella rete. ▪ Utilizzo di sistemi operativi DOS e Linux. ▪ Programmazione avanzata in IDL per analisi, modellazione e elaborazione automatica di dati. ▪ Utilizzo di ENVI per visualizzazione e analisi di immagini spettrali e spettri. ▪ Programmazione base in Fortran. ▪ Scrittura di data scripts. ▪ Archiviazione dati nel Planetary Data System ▪ Utilizzo e scrittura di programmi di calcolo di trasporto radiativo. ▪ Utilizzo di spettri e immagini spettrali. ▪ Programmazione per applicazioni di problem inversi e analisi statistiche.

Autorizzo il trattamento dei miei dati personali ai sensi del Regolamento (UE) 2016/679 e del D. Lgs. 196/2003 come modificato ed integrato dal D. Lgs. 101/2018.

Altro (partecipazione a convegni e seminari, pubblicazioni, collaborazioni a riviste, ecc., ed ogni altra informazione che si ritiene di dover pubblicare	**COMPETENZE PROFESSIONALI** ▪ Competenze avanzate nell'uso di spettri e immagini spettrali, analisi dei dati, telerilevamento, missioni planetarie, spettrometri infrarossi, spettroscopia, calcoli di trasporto radiativo, applicazione di problemi inversi, analisi statistiche acquisite durante i diversi anni di attivita' di ricerca nel campo delle Scienze Planetarie presso l'INAF, la NASA e l'Universita' del Maryland. ▪ Esperienza nell'elaborazione, calibrazione, modellizzazione e archiviazione di dati acquisita durante l'utilizzo e l'elaborazione dei dati di Mars Express, Venus Express, Cassini e Voyager. ▪ Esperienza nella progettazione di osservazioni acquisita per il design di osservazioni di Titano dallo spettrometro Cassini CIRS adattate a studi di temperature della superficie e di studio del vapor d'acqua nella stratosfera. ▪ Esperienza nella verifica e validazione delle diverse versioni di calibrazione per supportare la missione Cassini. ▪ Flessibilita' e capacita' di adattamento a diversi argomenti di studio e ambienti di lavoro sviluppata grazie all'utilizzo di diversi spettrometri con funzionamenti e caratteristiche spettrali varie, l'osservazione di pianeti/lune con caratteristiche atmosferiche, dinamiche e termiche fra loro assai dissimili e un'attivita' di ricerca svolta in vari centri di ricerca nazionali ed internazionali **COMPETENZE GESTIONALI ED ORGANIZZATIVE** ▪ Capacita' organizzative e manageriali sviluppate durante le varie esperienze lavorative ed in particolare durante la direzione dei progetti di ricerca finanziati dalla NASA di cui sono PI. ▪ Abilita' di lavoro in team con minima supervisione, automotivazione e capacita' didirezione e supervisione del lavoro. **RICONOSCIMENTI, PREMI E FELLOWHIPS** • **"Early Career Research Scientist Prize for Excellence"** in the Department of Astronomy in 2017, June 2nd, from the *University of Maryland*. • **ESA Award** in 2016 *"for making an outstanding contribution to the Venus Express mission which was orbiting Venus between April 2006 and December 2014"*. • **NASA Postdoctoral Fellowship** at Goddard Space Flight Center. Research subject: Study of water vapor in Titan' stratosphere using the data of the Composite InfraRed Spectrometer (CIRS) on board of the Cassini mission to the Saturnian system. *Awarded Budget ~ 300,000$* (2011-2013). • **NASA Scholarship** awarded for participation to the *NASA Jet Propulsion Laboratory (JPL) Planetary Science Summer School* (2009). **PROPOSALS SELEZIONATI** • **Instrument development project** for the Internal Research & Development Program (IRAD) - **Compact Ultraviolet to Visible Imaging Spectrometer for Planetary missions -** for development of a middle to near UV-Vis imaging spectrometer optimized to map Venus and its atmosphere. PI: Terry Hurford, **Project Leader: V. Cottini**, CoIs: Nicolas Gorius (Catholic University of America); Shahid Aslam (NASA, GSFC); Tilak Hewagama. • **Instrument proposal** submitted to the *NASA Announcement Research Opportunities in Space and Earth Sciences (ROSES*) – 2017, Planetary Instrument Concepts for the Advancement of Solar System Observations (PICASSO) Program (NNH17ZDA001N-PICASSO). Title: *"Advanced Net Flux Radiometer Focal Plane Assembly for Ice Giants".* 07/01/2018-06/30/2021. **PI: Shahid Aslam** (NASA, GSFC). Co-Investigators: Richard K. Achterberg (UMCP), Valeria Cottini (UMCP), Nicolas Gorius (CUA), Tilak Hewagama (UMCP), Conor A. Nixon (NASA GSFC), Geronimo Villanueva (NASA GSFC), Gerard Quilligan (NASA GSFC) Collaborators: Patrick Irwin (Oxford), Amy A. Simon (NASA GSFC). Awarded April 2018. • **Mission study proposal** submitted to the *NASA Announcement Research Opportunities in Space and Earth Sciences (ROSES) – 2016, Planetary Science Deep Space SmallSat Studies program* (NNH16ZDA001N-PSDS3). Title: *CUVE - CubeSat UV Experiment: Unveil Venus' UV absorber with CubeSat UV Mapping Spectrometer*. *Budget: 325,621$*. 04/01/2017-09/30/2017. **PI: Valeria Cottini** (University of Maryland College Park) Co-Investigators: Nicolas Gorius (Catholic University of America); Shahid Aslam (NASA, GSFC); Tilak Hewagama (University of Maryland College Park); Giuseppe Piccioni (INAF- IAPS); Collaborators: Lori Glaze (NASA, GSFC), Nikolay Ignatiev (IKI RAN), Emiliano D'Aversa (INAF-IAPS). Contact: Carolyn Mercer. Awarded March 27th, 2017.

Autorizzo il trattamento dei miei dati personali ai sensi del Regolamento (UE) 2016/679 e del D. Lgs. 196/2003 come modificato ed integrato dal D. Lgs. 101/2018.

	• **Science proposal** submitted to the *NASA Announcement Research Opportunities in Space and Earth Sciences (ROSES) – 2014, Planetary Data Archiving, Restoration and Tools program* (NNH14ZDA001N-PDART). Title: *Restoration, Calibration and Archiving of Voyager – IRIS Observations. Budget 291,515$*. 06/01/2015-06/01/2015. **PI: Valeria Cottini** (UMCP), Co-I: Conor Nixon (GSFC), Nicolas Gorius (CUA), Collaborators: Donald Jennings (GSFC), John Pearl (GSFC); Contact: Sarah Noble. Awarded February, 25th 2015. • **Science proposal** submitted to the *NASA Announcement Research Opportunities in Space and Earth Sciences (ROSES) – 2014, Cassini Data Analysis and Participating Scientists* (NNH14ZDA001N-CDAPS). Title: *Temporal and spatial variations of Titan's surface temperature retrieved from Cassini CIRS spectra. Budget 173,072$*. 04/01/2015-03/31/2017. **PI: Valeria Cottini** (UMCP), Co-Investigators: Richard Achterberg (UMCP), Co-I: Conor Nixon (GSFC), Collaborators: Donald Jennings (GSFC), Michael Flasar (GSFC), Patrick Irwin (OX), Undergraduate student; Contact: Jared Leisner. Awarded April 2015. • **Science proposal** submitted to the *NASA Announcement Research Opportunities in Space and Earth Sciences (ROSES) – 2014, Cassini Data Analysis and Participating Scientists* (NNH14ZDA001N-CDAPS). Title: *The Water Enigma: Saturn's Stratospheric Water Vapor Distribution*. *Budget 382,883$.* 05/01/2015-04/30/2018. **PI: Valeria Cottini** (since October 2016) (UMCP), Co-Investigators: Gordon L. Bjoraker & Paul N. Romani (NASA/GSFC); Richard Achterberg (UMCP), Collaborator: F.M. Flasar (NASA/GSFC). Contact: Jared Leisner. Awarded Feb. 2015.

INVITED TALKS

- **Cottini, V.** *CUVE - CubeSat UV Experiment.* Invited talk at Lunar and Planetary Science Conference, Th March 18, 2018.
- **Cottini, V.** *CUVE - CubeSat UV Experiment.* Invited talk at NASA Headquarter, Feb. 20th, 2018.
- **Cottini, V.** *CUVE - CubeSat UV Experiment: Unveil Venus' UV absorber with CubeSat UV Mapping Sp* the *Planetary CubeSat institute (PSCI) symposium held at NASA Goddard Space Flight Center*, Sept. 20
- **Cottini, V**. "*Titan in the Far-Infrared from Cassini CIRS Observations*" invited talk at the CRESST retrea
- **Cottini, V**., "*Infrared space-borne spectroscopy of Mars and Venus: Atmospheric composition from Express data*", invited talk for the Planetary Science Seminars, NASA Goddard Space Flight Center, Sep

ARTICOLI IN REFERRED JOURNALS

1. Cardesín-Moinelo, A., Piccioni, G., Migliorini, A., Grassi, D., Politi, R., Nuccilli, F., **Cottini, V.**, Drossart, *Mapping of Venus Nightside Atmosphere from Mean Thermal Emission and Atmospheric Windows Obs Express*. Icarus Vol. 343, 113683

2. Aslam, S.;Achterberg, R. K., Calcutt, S. B., Cottini, V., Gorius, N. J., Hewagama, T., Irwin, P. G., Nixon, Serote, M., Simon, A. A., Tran, D., Villanueva, G., 2020. Advanced Net Flux Radiometer for the Ic Reviews volume 216, 11

3. Nixon, C. A. *et al.,* 2019. *Cassini Composite Infrared Spectrometer (CIRS) Observations of Titan 2004* Journal Supplement Series 244.1 (2019): 14. Crossref. Web.

4. Jennings, D. E., Tokano, T., **Cottini, V**., Nixon, C. A., Achterberg, R. K., Flasar, F. M., Kunde, V. G., F R. E., Segura, M. E., Gorius, N. J. P., Guandique, E., Kaelberer, M. S., Coustenis, A., 2019. *Titan Surfac Cassini Mission*. The Astrophysical Journal Letters, Volume 877, Issue 1, article id. L8, 6 pp.

5. Dhingra, R., Barnes, J. W., Brown, R. H., Buratti, B J., Sotin, C., Nicholson, P. D., Baines, K. H., Clark Jaumann, R., Rodriguez, S., Le Mouelic, S., Turtle, E.P., Perry, J., **Cottini, V**. and Jennings D., 2018. *Tra heralds Titan's northern summer*. Geophysical Research Letters, Volume 46, Issue 3, pp. 1205-1212.

6. Bauduin, S., Irwin, P.G.J., Lellouch, E., **Cottini, V**., Moreno, R., Nixon, C.A., Teanby, N.A., Ansty, T *abundance in Titan's stratosphere: a (re)analysis of CIRS/Cassini and PACS/Herschel observations*. Ic DOI: 10.1016/j.icarus.2018.04.003

7. Coustenis, A., Jennings, D. E., Achterberg, R. K., Bampasidis, G., Nixon, C. A., Lavvas, P., **Cottini, V**., Fla *Evolution of Titan's Stratosphere Near the Poles*. Astrophys. J. Lett., 854 (2): L30. DOI: 10.3847/2041-8

8. Mousis, O. et al., 2017. *Scientific rationale for Uranus and Neptune in situ explorations*. Planetary and Planetary Astrophysics (astro-ph.EP), arXiv:1708.00235. DOI: 10.1016/j.pss.2017.10.005

9. D. E. Jennings, F. M. Flasar, V. G. Kunde, C. A. Nixon, M. E. Segura, P. N. Romani, N. J. P. Gorius, S. A C. Carlson, A. A. Mamoutkine, E. Guandique, M. S. Kaelberer, S. Aslam, R. K. Achterberg, G. L. Bjo **Cottini**, J. C. Pearl, M. D. Smith, B. E. Hesman, R. D. Barney, S. Calcutt, T. J. Vellacott, L. J. Spilker, S. C P. Ade, P. J. Schinder, A. Coustenis, R. Courtin, G. Michel, R. Fettig, S. Pilorz, C. Ferrari, 2017 *Spectrometer (CIRS) on Cassini*. Applied Optics Vol. 56, Issue 18, pp. 5274-5294. DOI: 10.1364/ao.56.0

10. Jennings, D. E., **Cottini, V**., Nixon C. A., Achterberg, R. K., Flasar F. M., Kunde, V. G., Romani P. N., Sam A., Gorius, N. J. P., Coustenis, A. and Tokano, T., 2016. *Surface Temperatures on Titan During Northe* Letter, Vol. 816, Issue 1, article id. L17, 4 pp. DOI: 10.3847/2041-8205/816/1/L17

11. Coustenis, A., Jennings, D. E., Achterber, R. K., Bampasidis, G., Lavvas, P., Nixon, C. A., Teanby, N. A. **V**., Flasar, F. M., 2016. *Titan's temporal evolution in stratospheric trace gases near the poles*. I 10.1016/j.icarus.2015.08.027

12. **Cottini, V**., Ignatiev N.I., Piccioni G., Drossart P., 2015. *Water vapor near Venus cloud tops from V observations 2006-2011*. Planetary Space Science. Special Issue: Exploration of Venus, Vol. 113 10.1016/j.pss.2015.03.012

13. Jennings, Donald E.; Achterberg, R. K.; **Cottini, V**.; Anderson, C. M.; Flasar, F. M.; Nixon, C. A.; Bjor Carlson, R. C.; Guandique, E.; and 10 coauthors, 2015. *Evolution of the Far-infrared Cloud at Titan's So* 804, Issue 2, article id. L34, 5 pp. DOI: 10.1088/2041-8205/804/2/L34

14. Jolly, A., **Cottini, V.**, Fayt, A., Manceron, L., Kwabia-Tchana, F., Benilan, Y., Guillemin, J-C., Nixon, C., *dicyanoacetylene (C_4N_2) on Titan: new experimental and theoretical spectroscopy results applied to Cas* 248, pp. 340–346. DOI: 10.1016/j.icarus.2014.10.049

15. Turrini, D., Politi, R., Peron, R., Grassi, D., Plainaki, C., Barbieri, M., Lucchesi, D. M., Magni, G., Altieri, Gaulme, P., Schmider, F., Adriani, A., Piccioni, G., 2014. *The comparative exploration of the ice giant pl Unveiling the history of our Solar System.* Planetary and Space Science, Volume 104, pp. 93-107. DOI:

16. Nixon, C. A., Jennings, D. E., Bezard, B., Vinatier, S., Teanby, N. A., Sung, K., Ansty, T. M., Irwin, P. G. Coustenis, A., Flasar, F. M., 2013. *Detection of Propene in Titan's Stratosphere*. Astroph. J. L., Volume 7 6 pp, 2013. DOI: 10.1088/2041-8205/776/1/L14

17. Jennings, D. E., Anderson, C. M., Samuelson, R. E., Flasar, F. M., Nixon, C. A., Bjoraker, G. L., Roman **Cottini, V**., Hesman, B. E., Kunde, V. G., Carlson,R. C., de Kok, R., Coustenis, A., Vinatier,S., Bampas Calcutt, S. B., 2012. *First Observation in the South of Titan's Far-Infrared 220 cm^{-1} Cloud*. The Astrophysi 761, Issue 1, L15. DOI: 10.1088/2041-8205/761/1/L15.

18. **Cottini V**., Nixon, C. A., Jennings, D. E., Anderson, C. M., Gorius, N., Bjoraker, G. L., Coustenis A., Tea K., Bézard, B., de Kok, R., Lellouch, E., Irwin, P. G. J., Flasar, F. M., Bampasidis, G., August 201 *stratosphere from Cassini CIRS far-infrared spectra.* Icarus, Volume 220, Issue 2, 10.1016/j.icarus.2012.06.014.

19. Jennings, D. E., Anderson, C. M., Samuelson, R. E., Flasar, F. M.; Nixon, C. A.; Kunde, V. G., Achterl Kok, R., Coustenis, A., Vinatier, S., Calcutt, S. B., 2012. *Seasonal Disappearance of Far-infrared Haze i* 754 L3. DOI: 10.1088/2041-8205/754/1/L3.

20. **Cottini, V**., Ignatiev, N.I., Piccioni, G., Drossart, P., Grassi, D., Markiewicz, W. J., 2012. *Mesospheric v VIRTIS's dayside data*. Icarus, Volume 217, Issue 2, Pages 561–569. DOI: 10.1016/j.icarus.2011.06.018

21. **Cottini, V**., Nixon, C. A., Jennings, D. E., de Kok, R., Teanby, N.A., Irwin, P. G. J., Flasar, F. M., 2 *variations in Titan's surface temperatures from Cassini CIRS observations*, Planetary Space Science, V 62-71. DOI: 10.1016/j.pss.2011.03.015.

22. Jennings, D. E.; **Cottini, V.**; Nixon, C. A.; Flasar et al. 2011. *Seasonal Changes in Titan's Surface Tempe* Journal Letters, 737: L15. DOI: 10.1088/2041-8205/737/1/L15.

23. Billebaud, F.; Brillet, J.; Lellouch, E.; Fouchet, T.; Encrenaz, T.; **Cottini, V**.; Ignatiev, N.; Formisano, V.; 2009. *Observations of CO in the atmosphere of Mars with PFS onboard MarsExpress.* Planetary and S Issue 12. DOI: 10.1016/j.pss.2009.07.004.

24. Ignatiev, N. I., Titov, D. V.; Piccioni, G., Drossart, P., Markiewicz, W. J., **Cottini, V.,** Roatsch, Th., Alme *Altimetry of the Venus cloud tops from the Venus Express observations.* Journal of Geophysical Resear DOI: 10.1029/2008JE003320.

25. Piccioni, G., Drossart, P., Zasova, L., Migliorini, A., Gérard, J.-C., Mills, F. P., Shakun, A., García Muño D., **Cottini, V**., Taylor, F. W., Erard, S., 2008. *The Virtis-Venus Express Technical Team. First de atmosphere of Venus*. A&A, Volume 483, pp. L29-L33. DOI: 10.1051/0004-6361:200809761.

26. Formisano, V, **Cottini, V.,** Giuranna, M., Grassi,D., Khatuntsev, I., Ignatiev, N., Maturilli, A., Piccioni, G., the pfs team, 2005. *First observations of the Planetary Fourier Spectrometer at Mars.* Advanced Space R 6, Pages 1074-1083. DOI: 10.1016/j.asr.2005.07.018

ESPERIENZE EDUCATIVE E DI PUBLIC OUTREACH

- 2018: Collaboration in the NASA GSFC production of the animation *Exoplanet case for Venus exploration*.
- 2017: **interviews** by the *Italian national news agency Media INAF* and by national and international popular science magazines (such as in *Phys.org and Astrowatch.net by Tomasz Nowakowski*, and in *SciTechDaily*, *"NASA CubeSat Mission Receives Funding to Solve Venusian Mystery" by Lori Keseey* on subjects related to planetary science and space missions in the Solar System.
- 2017: **Public lecture** at the Italian Lions and Rotary clubs on "Cassini Mission and its Gran Finale".
- 2007, 2008: public lectures at the European Researcher's Night in Frascati, Italy.
- 2013: **Astronomy talk** on *Titan in the Far-Infrared from Cassini CIRS Observations* at the CRESST retreat, UMBC.

- 2009: **Astronomy talk** on *Infrared space-borne spectroscopy of Mars and Venus: Atmospheric composition from Mars Express and Venus Express data*, Planetary Astronomy Lunchtime Seminar (PALS), University of Maryland, Department of Astronomy.
- 2007, 2008: **public lectures** on stellar and planetary formation.

COVERAGE IN NEWS E MEDIA

- 2021/06/18 Intervista a RaiNews24 Futuro 2000 su Venere e missioni spaziali recentemente selezionate
- Extract of the movie with title *"Goddard Team Reflects on 20 Years of Cassini"* inside the article *"Excitement and Tears as NASA Goddard Team Prepares for Cassini Finale"* about Cassini CIRS Team on Cassini mission: https://www.nasa.gov/feature/goddard/2017/excitement-and-tears-as-nasa-goddard-team-prepares-for-cassini-finale

2017 multiple articles (~70) from all the world (United States, Italy, United Kingdom, India, Spain, Russia, Poland, Brazil) on the mission concept CUVE (PI **Cottini**) for a mission to Venus selected by NASA ROSES Planetary Science Deep Space SmallSat Studies program. Some examples:

- 2017/09/05: Article in Astrofisica y Fisica Magazine – Spain, *"La NASA estudia una misión a Venus con un CubeSat"* http://www.astrofisicayfisica.com/2017/09/la-nasa-estudia-una-mision-venus-con-un.html
- 2017/08/28: Article in Fredzone.org (France): "*La NASA enverra bientôt des mini satellites autour de Vénus"*. http://www.fredzone.org/la-nasa-enverra-bientot-des-mini-satellites-autour-de-venus-777
- 2017/08/23: Article in Sciencepost.fr (France): "*La NASA enverra bientôt des mini satellites en orbite autour de Vénus"* by Brice Louvet. http://sciencepost.fr/2017/08/nasa-enverra-bientot-mini-satellites-orbite-autour-de-venus/
- 2017/08/18: Press release in Astrobiology Magazine – Exploring the Solar System and Beyond, United States, *"NASA studies CubeSat mission to solve Venusiam mistery"* http://www.astrobio.net/also-in-news/nasa-studies-cubesat-mission-solve-venusian-mystery/
- 2017/08/18: article on Space 24 website, Poland, *"NASA wyśle CubeSata by przyjrzał się atmosferze Wenus"*. http://www.space24.pl/648404,nasa-wysle-cubesata-by-przyjrzal-sie-atmosferze-wenus
- 2017/08/17: article in the America Space website, United States, "What Are Those Weird Dark Streaks on Venus? NASA CubeSat Mission Could Find Out" by Scott Anderson. http://www.americaspace.com/2017/08/17/what-are-those-weird-dark-streaks-on-venus-nasa-cubesat-mission-could-find-out/
- 2017/08/17: article in Alive Universe website, Italy, "*I CubeSat CUVE in missione su Venere*" by Eleonora Bonora. http://aliveuniverse.today/flash-news/missioni-spaziali/3088-cubesat-cuve-venere
- 2017/08/17: News article in SkyAlert, Mexico, *"La NASA investigará la atmósfera de Venus"* http://skyalert.mx/2017/08/17/la-nasa-investigara-la-atmosfera-venus/
- 2017/08/16: article in Sputnik International, Russia, *"NASA to Send First Orbiter in Decades to Study Venusian Atmosphere"*. https://sputniknews.com/science/201708161056523310-nasa-sends-orbiter-venus-atmosphere/
- 2017/08/16: article in IFLScience website, United Kingdom, "*A CubeSat Mission To Venus Might Finally Unlock The Mystery Of Its Atmosphere*", by Alfredo Carpineti http://www.iflscience.com/space/a-cubesat-mission-to-venus-might-finally-unlock-the-mystery-of-its-atmosphere/
- 2017/08/16: article in the International Buisness Time India website *"NASA studies CubeSats to solve mystery behind Venus' atmosphere: 7 things to know"* by Nupur Jha. http://www.ibtimes.co.in/nasa-studies-cubesat-mission-solve-mystery-behind-venus-dense-atmosphere-7-things-know-738656
- 2017/08/16: article on SciTechDaily, *"NASA CubeSat Mission Receives Funding to Solve Venusian Mystery"* by Lori Keseey, NASA. https://scitechdaily.com/nasa-cubesat-mission-receives-funding-to-solve-venusian-mystery/
- 2017/08/16: article in the XEU.com.mx website, Mexico, *"NASA enviará satélites miniatura para investigar atmósfera de Venus"* http://www.xeu.com.mx/nota.cfm?id=919302
- 2017/08/16: article in the ZUM.com, by 아시아경제, Korea, *"[스페이스]큐브샛으로 금성 탐험한다"* ,http://news.zum.com/articles/39745446?cm=popular

Autorizzo il trattamento dei miei dati personali ai sensi del Regolamento (UE) 2016/679 e del D. Lgs. 196/2003 come modificato ed integrato dal D. Lgs. 101/2018.

	• 2017/08/15: article in IBTimes, United States, *"NASA Mission To Venus Looks To Pierce Thick Atmosphere"* by Elana Glowatz. http://www.ibtimes.com/nasa-mission-venus-looks-pierce-thick-atmosphere-2578887 • 2017/08/15: article in Blastingnews, Brazil, *"Missão CubeSat volta-se para resolução do mistério de Vênus"* by Ingrid Gehlen Felkl. https://br.blastingnews.com/ciencia-saude/2017/08/missao-cubesat-volta-se-para-resolucao-do-misterio-de-venus-001934011.html • 2017/04/10: article in Phys.org, Astrowatch.net, United States, *"Proposed CubeSat mission to study atmospheric processes on Venus"*, by Tomasz Nowakowski. https://phys.org/news/2017-04-cubesat-mission-atmospheric-venus.html • 2017/03/31: article in website Media INAF, Italy, *"Piccoli satelliti Nasa crescono"* on the mission concept CUVE - Cubesat UV Experiment, selected by the NASA ROSES Planetary Science Deep Space SmallSat Studies program. http://www.media.inaf.it/2017/03/31/piccoli-satelliti-nasa-crescono/ • 2017/03/23: article in the website SpaceDaily, United States, on the mission concept selections of NASA ROSES Planetary Science Deep Space SmallSat Studies program (CUVE, by Cottini et al.) http://www.spacedaily.com/reports/NASA_selects_CubeSat_SmallSat_mission_concept_studies_999.html • 2017/03/23: NASA JPL Press Release *"NASA Selects CubeSat, SmallSat Mission Concept Studies"* on the selected proposals for the NASA ROSES Planetary Science Deep Space SmallSat Studies program. https://www.jpl.nasa.gov/news/news.php?feature=6791 • 2017/03/22: NASA Press Release *"NASA Selects CubeSat, SmallSat Mission Concept Studies"* on the selected proposals for the NASA ROSES Planetary Science Deep Space SmallSat Studies program. https://www.nasa.gov/feature/nasa-selects-cubesat-smallsat-mission-concept-studies • 2017 multiple articles on the mission concept CUVE (PI Cottini) for a mission to Venus selected by NASA ROSES Planetary Science Deep Space SmallSat Studies program https://www.universetoday.com/136831/nasa-plans-send-cubesat-venus-unlock-atmospheric-mystery/ • 2013/09/30: News article in Science 2.0 "Cassini Finds Propylene, A Household Plastic Ingredient, On Titan" by News Staff http://www.science20.com/news_articles/cassini_finds_propylene_household_plastic_ingredient_titan-121457 • Japan, http://www.sgepss.org/sgepss/kaihou/kaihou214web.pdf • http://www.lcpm12.org/wp-content/uploads/2017/08/0915-0935-Schurr.pdf • Many others on the topic… • 2013/09/18: Article "Detection of Propene in Titan's Stratosphere" in Astrobiology Web, AstroPh-EP http://astrobiology.com/2013/09/detection-of-propene-in-titans-stratosphere.html • 2012/03/04: Article in Cosmo Noticias, Chile, by Felipe Campos. *"Las caras de Titán"* http://www.cosmonoticias.org/las-caras-de-titan/ • 2012/03/01: Article in Acikbilim, Turkey, by Tevfik Uyar. *"Bir Başkadır Titan'da Bahar"* http://www.acikbilim.com/2012/03/guncel/bir-baskadir-titanda-bahar.html • 2012/02/27: Astropage, Germany, *"Die vielen Stimmungslagen des Saturnmondes Titan"* https://www.astropage.eu/2012/02/27/die-vielen-stimmungslagen-des-saturnmondes-titan/ • 2012/02/26: Ingenioren, by Thomas A. E. Andersen, Denmark, *"Titan er Jordens sære kusine"* https://ing.dk/artikel/titan-er-jordens-saere-kusine-127034 • 2012/02/24: Meteoweb, Italy, by Renato Sansone: *"Nuovi dettagli sul clima di Titano"* http://www.meteoweb.eu/2012/02/nuovi-dettagli-sul-clima-di-titano/121305/ • 2012/02/23: article "Seasons of Saturn's Titan --Oddly Mirror Earth's" by The Daily Galaxy - Great Discoveries Channel, on the results published in the journal Planetary Space Science (Cottini et al. 2012) http://www.dailygalaxy.com/my_weblog/2012/02/seasons-of-saturns-titan-oddly-mirror-earths.html and in JPL website with the article "The many moods of Titan" https://saturn.jpl.nasa.gov/news/2721/the-many-moods-of-titan/ • 2012/02/23: Press release from Jet Propulsion Laboratory (JPL): "The many moods of Titan" http://www.spaceref.com/news/viewpr.html?pid=36192

Autorizzo il trattamento dei miei dati personali ai sensi del Regolamento (UE) 2016/679 e del D. Lgs. 196/2003 come modificato ed integrato dal D. Lgs. 101/2018.

TALKS, ABSTRACTS AND OTHER PROFESSIONAL PAPERS PRESENTED

Colloquiums/Seminars/Invited Talks

1. **V. Cottini**, S. Aslam, N. Gorius, T. Hewagama, N. Ignatiev and G. Piccioni and E. D'Aversa. Presentation at **EPSC2018-1156:** Future Planetary missions and instrumentation (L class, M class, New frontiers, Discovery, etc.) of Cuve - Cubesat UV Experiment
2. **V. Cottini**, S. Aslam, E. D'Aversa, L. Glaze, N. Gorius, T. Hewagama, N. Ignatiev and G. Piccioni. Cubesat UV Experiment: Unveil Venus' UV Absorber with Cubesat UV Mapping Spectrometer. Venus. Venus Exploration Analysis Group (VEXAG) Meeting #15, November 14–16, 2017, Applied Physics Laboratory, Laurel, Maryland.
3. **Cottini, V**., Gorius, N., Achterberg, R.K, Coustenis, A., Anderson, C.M., Nixon, C.A., Irwin, P.G.J., Bjoraker, G.L., Jennings, D.E., Flasar, F. M., Ansty, T. M. Titan's Stratospheric Water Vapor profile from Cassini CIRS far-infrared Spectra. EPSC, Riga, Latvia, September 17-22, 2017, Vol. 11, EPSC2017-771
4. **V. Cottini**, S. Aslam, E. D'Aversa, L. Glaze, N. Gorius, T. Hewagama, N. Ignatiev and G. Piccioni. Cubesat UV Experiment: Unveil Venus' UV Absorber with Cubesat UV Mapping Spectrometer. EPSC, Riga, Latvia, September 17-22, 2017, Vol. 11, EPSC2017-771
5. **Cottini** et al. Talk on Titan' stratospheric water vapor from Cassini-CIRS data. CIRS Team meeting, Oxford, England, June 14, 2017.
6. **Cottini** et al. Talk on Titan' stratospheric water vapor from Cassini-CIRS data. Titan Through Time IV, NASA Goddard Space Flight Center, April 3-5, 2017.
7. **Cottini** et al. Talk on Titan' stratospheric water vapor from Cassini-CIRS data. CIRS Team meeting, GSFC, February 1-3, 2017.
8. Bjoraker, G., **Cottini, V.**, Achterberg, R., Coustenis, A. The Abundance of C6H6 and HC3N over Titan's South Pole as winter approaches. Titan Aeronomy and Climate. Proceedings of the Workshop held 27-29 June, 2016 in Reims, Champagne-Ardenne, France.
9. **Cottini** et al. Talk on Restoration, Calibration and Archiving of Voyager – IRIS Observations. CIRS Team meeting, Observatoire de Paris, May 9-11, 2016.
10. **Cottini** et al. Poster on Titan's gas behavior during the South Pole Fall. DPS, National Harbour, Washington DC, nov. 2015.
11. Jennings, D.E., **Cottini, V.,** Nixon, C. A., Coustenis, A., Tokano, T. Seasonal Surface Temperature Changes on Titan. DPS, National Harbour, Washington DC, November 2015.
12. Coustenis, A., Jennings, D.E., Achterberg, R.K., Bampasidis, G., Lavvas, P., Nixon, C.A., Teanby, N., **Cottini, V**., Anderson C.M. Seasonal variations of temperature and composition at the Titan poles. DPS, National Harbour, Washington DC, nov. 2015.
13. **Cottini** et al. Talk on Titan's gas behavior during the South Pole Fall. CIRS Team meeting, GSFC, Greenbelt, November 2015.
14. Jennings, D. E.; **Cottini, V**.; Achterberg, R. K.; Anderson, C. M.; Flasar, F. M.; de Kok, R. J.; Teanby, N. A.; Coustenis, A.; Vinatier, S. Autumn at Titan's South Pole: The 220 cm^{-1} Cloud. European Planetary Science Congress 2015, 27 September - 2 October, 2015, Nantes, France.
15. Coustenis, A.; Jennings, D.; Achterberg, R.; Bampasidis, G.; Lavvas, P.; Nixon, C.; Teanby, N.; Anderson, C.; **Cottini, V**.; Flasar, F. M. Titan's temporal evolution in stratospheric trace gases near the poles. European Planetary Science Congress 2015, 27 September - 2 October, 2015, Nantes, France.
16. **Cottini** et al. Talk on Titan's gas behavior during the South Pole Fall. AbSciCon meeting, Chicago, June 2015.
17. **Cottini** et al. Talk on Titan's gas behavior during the South Pole Fall. CIRS Team meeting, Oxford, April 2015.
18. Nixon, C. A.; Jennings, D. E.; Bezard, B.; Vinatier, S.; Teanby, N. A.; Sung, K.; Ansty, T. M.; Irwin, P. G.; Gorius, N.; **Cottini, V**.; Coustenis, A.; Flasar, F. M. Abundances of C3Hx Hydrocarbons in Titan's Stratosphere from Cassini CIRS. American Geophysical Union, Fall Meeting 2014, abstract #P31C-4007
19. Nixon, Conor A.; Jennings, Donald E.; Bezard, Bruno; Vinatier, Sandrine; Teanby, Nicholas; Sung, Keeyoon; Ansty, Todd M.; Irwin, Patrick G.; Gorius, Nicolas; **Cottini, Valeria**; Coustenis, A.; Flasar, F. M. Titan's Hydrocarbon Zoo: Detection of Propene and the Search for Structural Isomers. American Astronomical Society, DPS meeting #46, id.211.08, nov. 2014.
20. Turrini, Diego; Politi, Romolo; Peron, Roberto; Grassi, Davide; Plainaki, Christina; Barbieri, Mauro; Massimo Lucchesi, David; Magni, Gianfranco; Altieri, Francesca; **Cottini, Valeria**; Gorius, Nicolas; Gaulme, Patrick; Schmider, François-Xavier; Adriani, Alberto; Piccioni, Giuseppe. The ODINUS

	Mission Concept: a Mission to the Ice Giant Planets. EGU General Assembly 2014, held 27 April - 2 May, 2014 in Vienna, Austria, id.11806 21. D'Aversa, E.; **Cottini, V**.; Cerroni, P.; Bellucci, G.; Filacchione, G. The southern polar cloud on Titan as viewed by VIMS-V. European Planetary Science Congress 2014, EPSC Abstracts, Vol. 9, id. EPSC2014-604 22. **Cottini** et al. Talk on Investigation of Titan in the far-IR with CIRS. Titan Through Time III, APL, Laurel, MD, apr. 8th-10th, 2014 23. **Cottini** et al. Talk on Investigation of Titan in the far-IR with CIRS. CIRS Team Meeting, GSFC, March 4-6th 2014 24. **Cottini** et al. Talk on Titan's surface temperature from Cassini CIRS Observations. Titan's surface workshop, FIT, Melbourne, FL, Jan. 27th-28th 2014 25. Jennings, D. E.; Anderson, C. M.; Nixon, C. A.; Bjoraker, G. L.; Achterberg, R. K.; Flasar, F.; **Cottini, V**.; Coustenis, A.; Vinatier, S.; Teanby, N. A.; Bampasidis, G. Titan's Seasonal Changes Observed in the Thermal Infrared (Invited). American Geophysical Union, Fall Meeting 2013, abstract #P52B-03 26. **Cottini, V**. Invited talk on Titan in the Far-Infrared from Cassini CIRS Observations at the CRESST retreat, UMBC, nov. 15th 2013 27. **Cottini** et al. Talk on CIRS Focal Plane 1 science. CIRS Team Meeting, Oxford, Sept. 4-6 2013. 28. **Cottini, V**., Ignatiev, N. I., Piccioni, G., Drossart, P., Mickiewicz, W. J. Poster on Water vapour near the cloud tops of Venus from VIRTIS / Venus Express data. International Venus Workshop, Museo Diocesiano, Catania, Jun 10-14 2013 29. Nixon, C. A., Bjoraker, G. L., Achterberg, R. K., Gorius, N. J. P., Teanby, N. A., Coustenis, A.; Jennings, D. E.; **Cottini, V**., Flasar, F. M., Irwin, P. G. J. Talk on Seasonal Changes in the Composition of Titan's Southern Stratosphere, American Astronomical Society, DPS meeting #44, #312.19, 10/2012 30. Ignatiev, N. I.; Piccioni, G.; Drossart, P.; **Cottini, V**.; Markiewicz, W. J. Water vapour, clouds, and the UV absorber near the cloud tops of Venus from VIRTIS and VMC / Venus Express data. European Planetary Science Congress 2012, held 23-28 September, 2012 in Madrid, Spain. 31. Jennings, D. E.; Anderson, C. M.; Samuelson, R. E.; Flasar, F. M.; Nixon, C. A.; Kunde, V. G.; Achterberg, R. K.; **Cottini, V**.; de Kok, R.; Coustenis, A., Calcutt, S. B.; Vinatier, S. Seasonal Disappearance of Far-Infrared Haze on Titan. European Planetary Science Congress 2012, held 23-28 September, 2012 in Madrid, Spain. 32. **Cottini, V**.; Nixon, C. A.; Jennings, D. E.; Anderson, C. M.; Gorius, N.; Bjoraker, G. L.; Coustenis, A.; Teanby, N. A.; Achterberg, R. K.; Bézard, B., de Kok, R.; Lellouch, E.; Irwin, P. G. J.; Flasar, F. M.; Bampasidis, G. Water vapor in Titan's stratosphere from Cassini/CIRS Far-infrared spectra. European Planetary Science Congress 2012, held 23-28 September, 2012 in Madrid, Spain 33. **Cottini V**., Nixon, C. A., Jennings, D. E., Anderson, C. M., Gorius, N., Bjoraker, G. L., Coustenis A., Teanby, N. A., Achterberg, R. K., Bézard, B., de Kok, R., Lellouch, E., Irwin, P. G. J., Flasar, F. M., Bampasidis, G. Talk on Detection of water vapor in Titan's atmosphere from Cassini/CIRS infrared spectra. European Planetary Science Congress 2012. IFEMA-Feria de Madrid. 23 – 28 September 2012, Madrid, Spain 34. **Cottini, V**., Achterberg, R. K., Bjoraker, G. L., Romani, P., Bezard, B., Lellouch, E. Poster on Oxygen Compounds Abundance in Titan's Stratosphere from Cassini Cirs Data. Comparative climatology of Terrestrial Planets. Boulder, June 25-28 2012 35. **Cottini, V**.; Jennings, D. E.; Nixon, C. A.; Anderson, C. M.; Gorius, N.; Bjoraker, G. L.; Coustenis, A.; Achterberg, R. K.; Teanby, N. A.; de Kok, R.; Irwin, P. G. J.; Bézard, B.; Lellouch, E.; Flasar, F. M.; Bampasidis, G. Talk on Water vapor on Titan: the stratospheric vertical profile from Cassini/CIRS infrared spectra. Titan Through Time. Unlocking Titan's Past, Present and Future, NASA Goddard Space Flight Center, April 3th - 5th, 2012. http://spacescience.arc.nasa.gov/events/titan-through-time-ii-workshop, p.62 36. **Cottini, V**., Nixon, C. A., Jennings, D. E., Anderson, C. M., Gorius, N., Bjoraker, G. L., Coustenis, A., Teanby, N. A., Achterberg, R. K., de Kok, R., Bézard, B., Lellouch, E., Irwin, P. G. J., Flasar, F. M., Bampasidis, G. Talk on Water vapor in Titan's atmosphere from Cassini/CIRS infrared spectra, presented at the Sixth Workshop on 'Titan – Observations, Experiments, Computations, and Modeling', Miami, Florida, March 12-14, 2012 37. **Cottini, V**., Nixon, C. A., Jennings, D. E., Anderson, C. M., Gorius, N., Bjoraker, G. L., Coustenis, A., Teanby, N. A., Achterberg, R. K., de Kok, R., Bézard, B., Lellouch, E., Irwin, P. G. J., Flasar, F. M., Bampasidis, G. Talk on Water vapor in Titan's atmosphere from Cassini/CIRS infrared spectra. CIRS meeting Goddard Space Flight Center, January 11-13, 2012

38. **Cottini, V**., Nixon, C. A., Jennings, Teanby, N. A, Anderson, C., Irwin, P. G. J.; Flasar, F. Poster on Water vapor in Titan's atmosphere observed by Cassini/CIRS data. AGU Fall Meeting 2011, 5–9 December, San Francisco, CA, USA
39. **Cottini, V**., Nixon, C. A., Jennings, Teanby, N. A, de Kok, R., Anderson, C., Irwin, P. G. J.; Flasar, F. Water vapor in Titan's atmosphere observed with Cassini/CIRS data. EPSC-DPS Joint Meeting 2011. 02 – 07 October 2011, Nantes, France. Vol. 6, EPSC-DPS2011-1487-2, 2011 (http://meetings.copernicus.org/epsc2010/abstracts/EPSC2010-256.pdf)
40. Carlson, R. C.; Guandique, E. A.; Jennings, D. E.; Albright, S. A.; Pilorz, S. H.; Brasunas, J. C.; Kunde, V. G.; Flasar, F. M.; Gorius, N. J. P.; Mamoutkine, A. A.; Nixon, C. A.; Bjoraker, G. L.; Achterberg, R. K.; Coustenis, A.; Bampasidis, G.; Hesman, B. E.; Tingley, J. S.; Kaelberer, M. S.; Vinatier, S.; **Cottini, V.** Talk on Removing Artifacts in the Calibration of Cassini CIRS Spectra of Saturn and Titan. EPSC-DPS Joint Meeting 2011, Nantes, France, 2-7 October 2011. http://meetings.copernicus.org/epsc-dps2011, p.27.
41. **Cottini, V**., Talk on Last updates on Titan surface temperature and atmospheric water vapor. CIRS Team Meeting, Paris, June 2011
42. **Cottini, V**., Nixon, C. A., Jennings, D. E., Anderson, C., Teanby, N. A, Irwin, P. G. J.; Flasar, F. M. Talk on Preliminary results on Titan's atmospheric water vapor from Cassini-CIRS data. Fifth Workshop on 'Titan Chemistry – Observations, Experiments, Computations, and Modeling', Poipu Koloa, Kauai, Hawaii, April 11-14, 2011
43. **Cottini, V**., Nixon, C. A., Jennings, D. E., de Kok, R., Teanby, N. A, Irwin, P. G. J.; Flasar, F. M. Talk on Titan's surface temperature from Cassini-CIRS data. European Geosciences Union General Assembly, Vienna, Austria, 03 – 08 April 2011
44. **Cottini, V.** Talk on Last updates on Titan surface temperature and atmospheric water vapor. CIRS Team Meeting, NASA/GSFC, 14-15 March, 2011
45. **Cottini, V**. Talk on Titan's surface temperature and atmospheric water vapor. CIRS Team Meeting, Agenzia Spaziale Italiana, Rome, Italy, September 26-29, 2010
46. **Cottini, V**., Nixon, C. A., Jennings, D. E., Samuelson, R. E., de Kok, R., Irwin, P. G. J., Flasar, F. M. Talk on Retrieving Titan's surface temperatures from Cassini – CIRS observations. EPSC Abstracts Vol. 5, EPSC2010-256", presented at European Planetary Science Congress, Angelicum Centre – Pontifical University of Saint Thomas Aquinas 19 – 24 September 2010, Rome, Italy. http://meetings.copernicus.org/epsc2010, pp.256
47. Jennings, D. E.; **Cottini, V**.; Nixon, C. A. Talk on Seasonal Changes in Surface Temperatures on Titan. "European Planetary Science Congress 2010, 20-24 September in Rome, Italy. http://meetings.copernicus.org/epsc2010, pp.10
48. **Cottini, V**., Talk on Titan's surface temperatures from Cassini – CIRS observations. Cassini Titan's surface workshop, Institute of Planetary Research, DLR, Berlin, Germany, September,16-17, 2010
49. **Cottini, V**.; Nixon, C.; Jennings, D. E.; Anderson, C.; Samuelson, R. E.; Irwin, P. G. J.; Flasar, F. M: Talk on Diurnal Variations of Titan's Surface Temperatures from Cassini - CIRS Observations. 38th COSPAR Scientific Assembly, Symposium B, session 03, paper number B03-0043-10 (Poster, Nr. Tue-058), Bremen, Germany, 15-18 July 2010, http://adsabs.harvard.edu/abs/2010cosp...38..592C
50. Jennings, D. E., **Cottini, V**., Nixon, C. A., 2010. Talk on Surface Temperatures on Titan: Changes During the Cassini Mission. American Astronomical Society, DPS meeting #42, #61.01; Bulletin of the American Astronomical Society, Vol. 42, p.1088, http://adsabs.harvard.edu/abs/2010DPS....42.6101J
51. **Cottini, V**., Nixon, C. A., Jennings, D. E., Samuelson, R. E., de Kok, R., Irwin, P. G. J., Flasar, F. M. Talk on Titan's surface temperature from Cassini – CIRS observations. Faraday Discussions 147: Chemistry of the Planets, 8-10 of June 2010, Saint Jacut de la Mer, France, Europe
52. Jennings, D. E.; Nixon, Conor A.; **Cottini, V**., 2010. Talk on Seasonal Changes in Titan's Surface Temperatures. Titan Through Time; A Workshop On Titan's Past, Present and Future, NASA Goddard Space Flight Center, April 6th - 8th. Edited by V. Cottini, C. Nixon, and R. Lorenz., pp.45. http://adsabs.harvard.edu/abs/2010ttt..work...45J
53. **Cottini, V**., Nixon, C. A., Jennings, D. E., Anderson, C. M., Samuelson, R. E., Irwin, P. G. J., Flasar, F. M.. Talk on "Diurnal variations of Titan's surface temperatures from Cassini - CIRS observations." "Titan Through Time: A Workshop on Titan's Past, Present and Future," NASA Goddard Space Flight Center, April 6th - 8th, 2010, http://adsabs.harvard.edu/abs/2010ttt..work...43C

54. **Cottini, V**., Nixon, C. A., Jennings, D. E., Samuelson, R. E., Irwin, P. G. J., Flasar, F. M., "Titan Surface Temperature retrieval from Cassini – CIRS data" presented at the Titan Surface Workshop in Tucson, 15-16 March 2010
55. **Cottini, V**., "Titan Surface Temperature retrieval from Cassini – CIRS data", Deputy Center Director's Council on Science (DDCS), Third Annual Science and Exploration Directorate (Code 600) New Year's Poster Party, January 28, 2010
56. **Cottini, V**., Nixon, C. A., Jennings, D. E., Anderson, C. M., Samuelson, R. E., Irwin, P. G. J., Flasar, F. M., "*Titan's Surface Temperatures Maps from Cassini – CIRS Observations*", presented at the Cassini - Huygens Project: Huygens Legacy and Future Titan Exploration, Barcelona, Spain, January 13-15, 2010
57. **Cottini, V**., "*Infrared space-borne spectroscopy of Mars and Venus: Atmospheric composition from Mars Express and Venus Express data*", Planetary Astronomy Lunchtime Seminar (PALS), University of Maryland, Department of Astronomy, November 12, 2009
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